# 

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# NEW, BUT IMPROVED?

The Ultimate Mid-Engine Corvette Review: Driven, Tested, and Hammered on the Racetrack

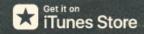


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VOL. 65, NO. 6

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# Backfires

The joyful noise of the commentariat, rebutted sporadically by Ed.

#### **TRUE LOVE WAITS**

You guys really nailed the cover of the September 2019 issue! The photograph and the two-word caption perfectly capture the significance of the 2020 Corvette. Every time I see it, or even think of it, I smile.

-Bill Knight Alexandria, VA

I've been subscribing to *C/D* for 35 years. Your September cover is the first one that took my breath away.

Simple. Perfect. Hallelujah!

—Drew Neumann

Mankato, MN

It's good, but it's still no avocado in a Reatta-Ed.

#### **VETTING PROCESS**

Kudos to the C/D staff for the absolute best preview story among all the monthly car mags reporting on the 2020 Corvette development and details ["The Mid-Engined Corvette Is Here," September 2019]. The others teased readers with a cover photo and maybe a page or two of generic text. The C/D feature truly informed readers with in-depth coverage of the engineering background, analysis of design, interviews with key GM people, and numerous great photos and illustrations.

> -Bruce Elliot La Conner, WA

When the C7 debuted a few years ago, I wrote and said, "Nice ass." And you kindly printed it. Sadly, the feeling just isn't there for the C8.

-Ron Nath Des Moines, IA

The C8 love affair is nothing like my decades-long fidelity to *C/D*, where reading every word of every issue is required to find such hilarious irreverent gems: "There are six available [wheel] finishes, and [Tadge] Juechter proudly notes that 'none of them are chrome.' Upon hearing that news, tens of thousands of men in Tommy Bahama



(As Tested) \$62,020
Ford Explorer ST
A few add-ons push the
Ford past the Chevy.

#### PAY DAY

A Ford Explorer ST costs more than a new mid-engine Corvette Stingray?

—Patrick Harvill Riverside, CA



\$59,995 (Base)
Chevrolet Corvette
With no options, a C8 is less than an Explorer.

-Mark Wels Studio City, CA

I can't stand that Tadge and Tom Peters are crapping on the Corvette and New Balance-wearing owners. Boomers have sustained the Corvette. [Mary] Barra, Juechter, and Peters should all apologize for disrespecting their paying demographic.

> –Jose Lopez Miami, FL

The generations that brought us faded and torn jeans, multiple body piercings and tattoos, and excessive facial hair are criticizing our appearance because we like chrome wheels?

> −Don Brimhall Phoenix, AZ

## Well, they don't like your shirt and shoes, either-Ed.

By the time I got the issue, the C8 had been released for a month, so I honestly didn't expect to learn much more than web articles already contained. But your magazine had, in addition to the main article, sidebars on the LT2 engine, the frame, the tires, the design, a Q&A with engineers, etc. I've been a subscriber for over 25 years. In a world where print media is facing challenges, especially in the automotive world, the type of coverage you gave the C8 gives me a reason to continue being a subscriber for another 25.

> -Scott Rothermel, Grand Ledge, MI

I can hear it now—the wailing, the gnashing of teeth:
"The new C8 Corvette has

# 10 Minutes with Tobias Moers

We sat down with the Mercedes-AMG CEO at the Frankfurt auto show to discuss the performance brand's future.

#### C/D: How will you maintain AMG's attitude with electrification?

Tobias Moers: EQ Performance is our move to becoming the technology brand of EQ. The type of hybridization that we will be doing is for performance, which will boost the power of the next-generation C-class and S63. It's a different interpretation of hybrid; not the same technology that Mercedes uses. It's a bespoke technology for us-a combination of a performance ICE [internalcombustion engine] and the performance E-drive powertrain, with a performance battery, too.

#### C/D: How far off is that?

**TM:** End of next year. Cars are on the proving ground now ... 35 people with 10 cars. The GT 4-Door will be the first one to have it.

### C/D: When will we see a new Black Series?

TM: In a year's time. It's on the 'Ring. And it will be something different. We changed everything: suspension, aero; active aero is there. Engine power output, engine characteristics. Something you wouldn't expect.

## C/D: What are you driving from AMG's portfolio?

TM: Today, I'm driving an A45. It's matte gray. It's great. We are just in the ramp-up of the CLA and A45, and it's always great to get some experience with the car [to make sure] everything is right. That's what I'm doing now.

## C/D: What was the first car you owned?

**TM:** Opel Kadett C coupe, and the next one was a Volkswagen Golf GTI.



EUROPEAN EDITOR

#### Mike Duff

Duff runs our European office, which means he works from his home in England in tartan footie pajamas. When he's not in his jammies, you might find him in his 1990 Benz 190E 2.5-16V. His piece on the new VW Golf is on page 13. no manual transmission!"
Three words: Get over
yourself. I'd be willing to
bet Ed.'s salary that an
average Corvette driver
with an automatic can keep
up with or beat the aboveaverage Corvette driver
with a manual on the track.

-Jeff Kleinholz The Villages, FL

So Chevy slipped an LT2 in the middle of the C8, bolted it to an auto trans, and tries to tell us it's a Corvette? It's just a Euro look-alike fit only for snowflakes. Why couldn't the skunkworks overcome "structural inefficiencies" with a little elbow grease and some Yankee ingenuity and engineer a Vette

where we can do our own rowing? God save America.

-Dave Quirk Kronenwetter, WI

## It's almost Christmas, so jingo all the way-Ed.

I predict that within a year or so, there will be lots of used C8s on the market at reduced prices by owners tired of dealing with the inevitable gremlins.

> -Jerry Ritter Springfield, OR

In your feature story on the new Corvette, you criticize (in two places!) the car for not having a manual transmission. Silly me, I thought *C/D* was about performance. Never mind

SIC YOUR DOGS ON US AT: **EDITORS®CARANDDRIVER.COM** OR JOIN: **BACKFIRES.CARANDDRIVER.COM** Moers portrait by peter oumanski



Readers wrote in to express their concern about distracted drivers causing accidents.

the control afforded by the paddles; never mind the faster shifting; never mind the structural and packaging advantages. It's time for *C/D* to get over the quasi-religious nostalgia for manual transmissions. It's a wonder you don't advocate manual control for spark advance.

-David McMillin The Woodlands, TX

Nevermind was Nirvana's best album-Ed.

One of the best parts of driving a sports car is being able to be in control. I believe one of the best ways to feel in control is being able to physically shift gears yourself. I love the new C8 Corvette, but it's being offered only with an automatic transmission. Although the car may be able to shift faster with a dual-clutch automatic, drivers won't get quite as much joy out of the





car as they would if there were a manual version.

-MS

Burke, VA

Delta should play Nirvana's
"On a Plain" during the
boarding process-Ed.

I find it humorously ironic chief engineer Juechter thinks that after this car, the Corvette will be around long enough to piss people off by going back to round taillights. Good one, Tadge!

-Ken Chapman Advance, NC

The C8 is here. Nothing else matters. Time to consider rebranding to C8 and Driver.

-Ron Ammar Princeton, NJ

Metallica's most commercially successful album, 1991's self-titled Metallica, featured "Nothing Else Matters"-Ed.

#### **TANKING**

I'm guessing you'll get a lot of mail pointing out that Corvettes have had dual fuel tanks since 1997. Add this one to the pile.

> -Chris Visser Falls Church, VA

Just yours and six others-Ed.

#### **STOP CRASHING**

My first thought on opening the September issue to page 66 ["Walked Away"] was, Wow, lowering the front end, moving the bumper forward and up, and dropping the front edge of the roof a few inches really improved the looks of that Civic.

> −Bob Boyd Temecula, CA

Ms. Hart is a prime example of what is wrong with so many drivers today; they don't stay focused on driving.

—Brian Thorn
Sun Lakes, AZ

I'm awfully glad that the young lady in "Walked Away" was only slightly injured after she "drifted into oncoming traffic as she searched for a tissue." But it would be common decency to tell us what happened to the poor bastard she hit, not to mention everyone else on the road.

-Kevin Goff Atlanta, GA

They were uninjured-Ed.

#### **MELLOW YELLOW**

In the "Land of the Free" road test in the September issue, the test results for the 2020 Porsche 911 Carrera S have its top speed as 191 mph, but in the story and in the picture on page 53, you show that it is 196 mph. Which is it? Is the speedo that far off?

–Ed Kemmerer Novi. MI

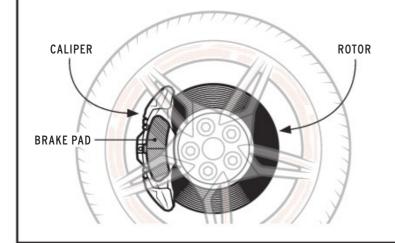
It is largely down to an optimistic speedometer, but in addition to speedo error, the tire diameter expands slightly due to increased heat at very high

EXPLAINED

In the September issue, you had an enlightening article about new Porsche brakes titled "Dust Busters." In it, you stated that the brake dust that accumulates on wheels comes from the rotors, not the pads. If that were true, then that dust would be iron particles and thus would stick to a magnet. Well, it doesn't, which means it's pad dust. Care to explain?

—George Knab, Buffalo, NY

We should have said the brake dust that accumulates on the wheels comes primarily from the rotors. Dust from the pads is certainly a part of the mix, but only a small portion. With impressive specificity, EBC Brakes says that 92 percent of the brake dust on a wheel is ferrous metal material. That comes mostly from iron rotors, with a smaller portion originating from the pads, which are made up of as much as 30 percent steel. The metallic dust particles are often hot enough to melt into a painted wheel's surface. Your magnet is too weak to pull them free—*Ed*.



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speeds, changing the overall gearing. The engine speed and gearing mean we were traveling in the mid-180s when our photographer snapped that shot. If we'd actually tested the 911's top speed, our GPS data logger would have recorded the speed with better than 0.1-mph accuracy—Ed.

Great article about driving in Germany. U.S. driving would be so much safer and more pleasant if Americans drove the way Germans do. If you follow the German rules—no left-lane bandits and stay in the right lane unless passing—it is more relaxing, too.

-Rich Kosmerl Lake Forest, IL

#### S TO THE T

I must admit, as an owner of an original [Focus] ST, I was disturbed when Ford put this nomenclature on the Explorer ["Super Trooper," September 2019] but understood why they did it. I do feel, however, that it thoroughly diminishes the original intent. Looking for a heightened driving experience? Please don't look in this category.

> -Mark Bedel Gibsonia, PA

A urologist with some welding skills could repair the hypospadias on those exhaust tips.

> -Scott Rosenlieb Bakersfield, CA

Whatever you do, do not Google "hypospadias." You've been warned-Ed.

#### **FUEL'S GOLD**

Ah, to be in Ann Arbor with no car. The photos in your September article "Alternative Fools" show green trees and blue skies. It's arguably sometimes pleasant for a cyclist to ride in

# METALLIC-FLAKE STREAMLINE BABY

n what is likely a first for *Car and Driver* (*C*/*D* historians and archivists are still fact-checking this), we have actually paid real money for a new car. We are leasing a Tesla Model 3.

Here's a short version of the inside baseball behind this decision: We usually request vehicles from manufacturers, and without too much of a wait, these cars appear at our office for testing. Some of the test cars remain for a two-week loan, and some commit to a 40,000-mile stay. We have repeatedly asked Tesla for vehicles to test, but lately, company reps have been painfully slow to respond to our requests. And we're impatient.

Whether self-driving cars succeed or fail is one of the big questions for the 2020s. So why not start the decade off right, with an electric car that may (or may not) end up being able to drive itself? Tesla CEO Elon Musk has made a lot of noise about autonomous technology, promising that the software updates and the cameras and the tech already onboard our Autopilot-equipped Model 3 will make the self-driving car possible. We want to have our Midnight Silver Metallic-flake streamline baby around whenever it becomes possible to nap while driving from San Francisco to Los Angeles.

Not that we'd do that. But we are going to drive the heck out of it for at least two years and report on its autonomous capabilities as they roll out. And we'll dutifully publish what goes wrong, what goes right, and what it's like to live with one.

We had a Tesla Model S for a 40,000-mile long-term test back in 2016 and 2017, so we have the Tesla High Power Wall Connectors and

are familiar with the brand's quirky oddities, like how you never really turn off the car. You just stop, put it in park, and walk away.

As of this writing, our new car has 40 miles on it. We're hoping that living the Tesla life will provide lots of fodder for stories. We've already tried to play Centipede on it, watched a few episodes of *The Office*, and someone selected the option to make the turn signal play fart noises. We're obviously taking this very, very seriously.



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## **Backfires**

Michigan from May through September. Most nights drop below freezing, however, from November through March, and precipitation hangs in there at 2.5 to 3.0 inches—of snow. Get out your fat-tire bike with studs. Or start your car indoors, wait a few minutes, and brave that 18-degree morning for about 20 seconds.

> -Jan K. Kitchel Portland, OR

#### I told you not to Google it-Ed.

I enjoyed your look at alternative commuting methods, but I think there were a couple things that you didn't consider. The biggest issue: Time is money. If it takes three times as long to commute, are you really saving money?

Another factor is, what happens when you get to work hot and sweaty in your non-work-appropriate biking apparel? Do you shower at work? Is there even a shower at work? Do you need to repeat this when you go home? How much time does this add to your workday? So, looks like biking to work is a rather big loser, particularly when you consider biking in bad weather or the relative safety of commuting by car versus by bike.

> -Bruce Funderburg Madison, AL

Please explain how Josh Jacquot gets a score of \$0.05 per mile. How far did he ride? Because he'd have to ride pretty far in one week to burn the price of his bike down to \$0.05 per mile. You don't really even say what the expenses



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were that determine the number. He says his commute is 15.7 miles each way, so that's 2 x 5 and I make it that he spent \$7.85 on his bicycle. Must have been one hell of an Amazon sale.

-Aaron Robinson Torrance, CA

Your tone is annoyingly familiar, Robinson-Ed.

#### **DUST UP**

"Brake dust ... comes from the rotors, not the pads." Mind blown.

> -Pedro Gregorio Waterford, MI

#### **CHALKBOARD**

Interesting article on chalking tires ["Chalk Talk," September 2019], and I'm glad you identified Alison Taylor. Now we will know whom

to thank when parking meters begin to require acceptance of a chalking waiver before accepting payment. And of course, the parking fee will have to go up to recover the cost of replacing all the meters with units that have a touch-screen signature grid.

-Mark Brandt Newport, WA

#### **PROPELLER HEAD**

Just finished reading the September issue and the last page was a very pleasant surprise ["What to Buy: 1987-1993 BMW 325i"]. The 1987 BMW 325is was my first new car and has remained a favorite ever since. I went from a 1975 Chevy Corvette that had a huge appetite for gas to the

325is and didn't look back, keeping it for almost 11 years. —Don Miller Gilbert, AZ

#### **DREAM JOURNAL**

Acura Vigor motor for the new Camry SE.

-Dean Simons San Diego, CA

Why doesn't Chrysler build an aluminum Hemi-engined Viper? I'd think 800 horsepower should be enough.

> -John Taylor Huntington Beach, CA

I'm on a plain. I can't complain-Ed.

When you stop snarky answers to letters, please cancel my subscription!

−Bob Fischler St. Petersburg, FL **=** 

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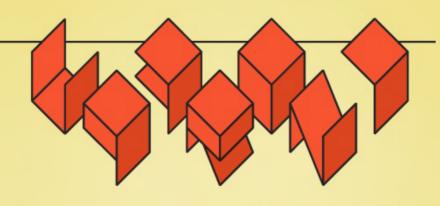


Front-end styling

and headlights are

reminiscent of the

handsome Arteon's.



# **Biggie Smalls**

Volkswagen's new Golf is still its bread and butter, for now.

For much of the past four decades, the business of Volkswagen has been the Golf. In that time, more than 35 million of them have been produced—the air-cooled Beetle managed a mere 21.5 million. The Golf and its spinoffs have been responsible for a disproportionate number of our favorite Vee-Dubs—GTIs, GLIs, Sciroccos, Corrados, Cabriolets. Now VW is showing off the eighth gen, set to launch in Europe by year's end. A few versions, but not all, are headed to the U.S. shortly thereafter.

Like the Porsche 911, the Golf has steadily evolved, so it's not surprising that the latest one isn't a radically different design. It's still built on the Swiss Army knife of automotive architecture, VW's highly adaptable MQB platform. Exterior dimensions are largely unchanged, with a modest 1.1-inch increase in length, fractional reductions in height and width, and the same 103.8-inch wheelbase as before.

Most of the Europe market's tiny powerplants won't come to the U.S. You're unlikely to miss the entry-level 1.0-liter three-cylinders that will sit at the bottom

of the range on the Continent. In the wake of the Dieselgate scandal, the pair of 2.0-liter diesel four-bangers will also not be offered to us. There's a better chance we'll get one of the two turbocharged 1.5-liter inline-fours.



#### **PALEOGRAPHY**

The Golf will carry VW's retro-ish new logo, which we're told is meant to be friendlier than the old one and represent a new age of the company: The original Beetle was the first, the Golf was the second, and the new range of electric ID. models will be the third.





#### REVEAL OF THE MONTH

A six-speed manual will be standard on all gasoline models sold in Europe. The more powerful gasoline versions will have the option of a seven-speed dual-clutch automatic, which will work with a 48-volt hybrid system through a belt-connected starter-generator. The Old World will also see two plug-in hybrids, but we're told those aren't likely to come stateside. Oh, and there won't be a new version of the rarely purchased e-Golf. VW reckons its new range of electric vehicles, specifically the ID.3, has effectively replaced it.

The Golf Mark 8's exterior is familiar but with harder creases in the sheet-metal and narrower, meaner-looking head- and taillights. The major innovation is inside, where VW has installed a touchscreen interface that replaces most conventional buttons with iPad-



like controls. Even base cars will have an 8.3-inch touchscreen in the middle of the dashboard. Many functions can be controlled by what VW describes as "sliders." Swiping left or right in the appointed area on the center console will adjust the temperature, and moving a finger forward or backward on a different panel will open or close the sunroof.

#### THE SPORTING LIFE

Beyond confirming it will exist, Volkswagen has dropped little information about the next GTI. We know it's definitely a separate model from the plug-in-hybrid GTE and that it will stick with a turbo 2.0-liter engine, likely with an output of at least 250 horsepower. Golf R fans will be happy to know that VW has promised more than the



WIDTH Mk 7: 70.8 in Mk 8: 70.4 in

WHEELBASE Mk 7: 103.8 in Mk 8: 103.8 in



The new shift-by-wire dual-clutch transmission allows for a far smaller gear selector and also permits the driver to "engage reverse while [the vehicle] is still traveling forward at low speeds to make maneuvering easier." We expect to see more technical details on that.



**HEIGHT** Mk 7: 58.2 in Mk 8: 57.3 in

Cars fitted with adaptive dampers provide the driver with a slider interface to change the chassis mode, with the promise of going "beyond Sport mode [where] there is an additional adjustment range featuring maximum damping for minimum body movement and particularly direct vehicle reactions." That sounds to us like it'll go to 11.

Other tech highlights include voice control, which is smart enough to increase the temperature if an occupant says, "I'm cold." Expect some amusing battles over climate settings with rear-seat passengers. Integration with Amazon's Alexa assistant will follow, so you can presumably order toilet paper while commuting. Travel Assist-enhanced cruise control will steer and regulate speeds at up to 130 mph. Europe will also get V2X functionality—a short-range data-exchange system that allows equipped vehicles to talk with one another and with road infrastructure, warning of accidents or broken-down vehicles ahead. Big Brother is watching.

The major unknown is which Golfs will make it stateside. So far, VW has confirmed only the GTI and Golf R. Other versions are "under consideration," according to a company rep. Given our love for the more basic versions of the outgoing Golf, we hope that some lower-level variants of the next generation will be sold here, too. -Mike Duff

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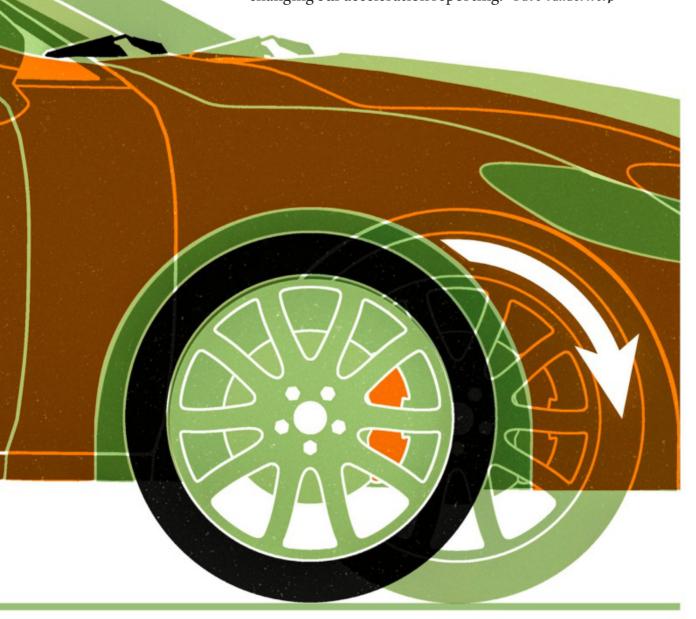


## Roll Reversal

By adopting an industry standard, we've changed how we report acceleration.

Some readers may find this surprising, but the clock doesn't start on our acceleration runs right when the vehicles start rolling. This practice, which is commonly called rollout, comes from the drag strip, where it's possible for a car to travel a foot or more before it trips the timing light that actually starts the clock. The industry standard calls for a one-foot rollout before a timed run begins. Our old test equipment couldn't measure that precisely, so

we approximated a foot by beginning our runs at 3 mph. That was a fair estimate when cars didn't launch as hard as they do today, but gains in traction, launch control, and horsepower have rendered our 3-mph approximation increasingly obsolete. Our GPS-based Racelogic VBox test equipment is accurate enough to measure the first foot of rollout, so starting with this issue, we're changing our acceleration reporting. -Dave VanderWerp



#### WHAT IS ROLLOUT?

Lining up a vehicle at a drag strip requires careful placement of the front tires relative to two beams of light. When a car's front tire crosses the first one, a "prestage" warning is lit. When the tire interrupts

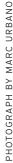
the second beam-the "stage beam," which is seven inches ahead-the car is staged and ready for a run. The clock starts when the car's tire moves enough to uncover the second light beam. The distance the car travels before the stage beam is uncovered

(and therefore the timing begins) is what's known as rollout, and it can vary from nothing to more than a foot. Obviously, this affects the elapsed time, sometimes by as much as 0.3 second. Our testing now adopts the industry-standard one-foot rollout.



#### **FACE THE CLOCK**

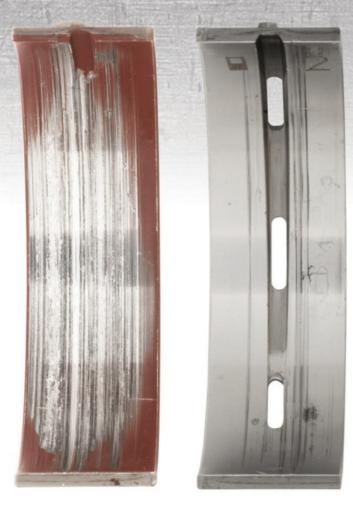
Here's how our change affects the C8 Corvette on page 26. The C8 accelerates to 3 mph in 0.1 second, but the one-foot time is 0.2 second, at which point the Corvette is going 6 mph. In general, acceleration times for most cars will improve by about 0.1 second with the new procedure. In the interest of full disclosure, we'll be publishing the onefoot-rollout time of every tested vehicle so you can add it to the acceleration times to arrive at true zero-to-X measurements. We also will be recalculating times for past vehicles, so that any comparisons we make today are apples to apples. Unfortunately, it is impossible to recrunch pre-VBox test results. We will generate estimates in those rare instances.



# PROBLEM.

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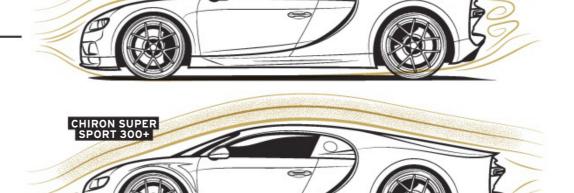
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# The 300 Club

How Bugatti finally broke through the 300-mph barrier.

Ever since the Bugatti Chiron arrived with the claim of a 261-mph governor, we've been dying to know how fast it could go off leash. And now, thanks to Bugatti, we do. In August, the brand took a "near-production" Chiron prototype to the Ehra-Lessien proving ground in Germany and hit 304.773 mph. The car required some modifications to break 300, which we've outlined here. Bugatti is now celebrating this feat by selling a 30-unit run of a special-edition Chiron, called the Chiron Super Sport 300+, with some of the same mods that took the prototype to 300 mph. Cost? A hair under \$3.9 million. -Mike Duff

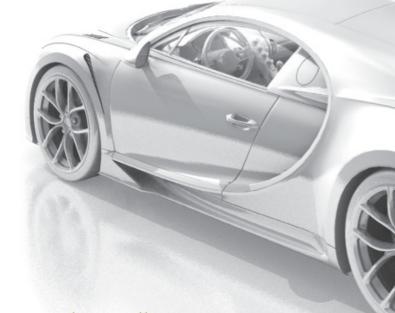


The idea was to create neither lift nor downforce, but veteran racer Andy Wallace explains there were still huge forces in play. "It doesn't mean the air is having no effect; it means that there are close to 2000 kilograms [4440 pounds] on the top surface of the body trying to pick the car up off the ground and another 2000 kilos under the car trying to pull it back down."

The Bugatti in question uses a 1600-hp quad-turbo 8.0-liter W-16 (100 horses more than the regular Chiron).

CHIRON





How does Wallace feel about breaking the 300-mph barrier in a road car? "It's pretty bloody cool."



Bugatti extended the bodywork by 10 inches to improve aerodynamics. The record car also has a lower ride height for reduced drag, a taller top gear, and a full roll cage.

At 304.773 mph, the prototype covers 447 feet every second—or a mile every 12 seconds—and each custom-made Michelin rotates at 4100 rpm.
Take that, LPs!



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Making a battery-powered supercar with the horsepower of a Bugatti is definitely less expensive than engineering and building anything resembling a Bugatti. Creating (or buying) your own engine, coupling it to a transmission, and then meeting emission standards around the world is a hideously time-consuming and expensive process. But pairing a powerful electric motor with a large battery pack is a relatively inexpensive way to go very fast, and as such, there has been a massive outbreak of electricsupercar concepts. We say "concepts" because, as with all other aspects of the global startup culture, the correlation between grandiloquent ideas and their promised emergence is often tenuous.

The entries here make preposterous claims, and they have equally preposterous prices. Will any of them go from vaporware to reality? None of these cars have been delivered, hence our skepticism. We've rated the cars on a 10-point scale and arranged them from most to least likely to materialize. -Brett Berk

LOTUS EVIJA 8.9

Innovative, janky, and long tilting toward disaster, Lotus has recently been revitalized by a cash injection from Chinese multinational and Volvo owner Geely. Its first new idea is this \$2.1 million, 1972-hp, 200-mph limited-edition missile.

**TESLA ROADSTER 8.0** Elon Musk's follow-up to his first twoseater-which initiated his company and this category-seems like a logical move. But this Roadster's 620-mile range, 1.9-second zeroto-60 time, 250-mph top speed, \$200,000 price, and 2020 delivery date seem dubiously ambitious. If it happens, we'd expect it to be in Q5 of 2020.

RIMAC C\_TWO 7.9
With the exception of being the birthplace of racing legend Mario Andretti, Croatia is not

known as an automotive powerhouse. Rimac hopes to change that by making 150 of this 1914-hp supercar, which it says will rip to 60 mph in 1.9 seconds, hit 258 mph, and cost \$2 million. Porsche recently invested in the company and now owns 15.5 percent of Rimac. That seems like a good omen for the C\_Two's shot at reality.

PININFARINA BATTISTA 6.7

The famed Italian coachbuilder promises 1900 horsepower, a sub-two-second zero-to-60-mph time, a 217-mph top speed, and a price of \$2.2 million. Extensive carbuilding experience and deep funds from Indian conglomerate Mahindra might help accomplish some of this.

DRAKO GTE 6.5
The GTE has four doors, four motors, and a Fisker Karma platform.

The bros who started

Drako promise, for the projected price of \$1.3 million, a 206-mph top speed and "cornering precision unlike any other supercar on the road today."

PIËCH MARK ZERO 3.3

The Mark Zero combines traditional sports-car design with a vaporware powertrain and the fear-inducing surname of a recently deceased VW Group chairman in the alleged service of delivering a 3.0-second sprint to 60, a 155-mph top speed, and over 300 miles of range.

FISKER EMOTION 2.8

Designer Henrik Fisker (the same guy who started the Karma program) serially seeks out new, improbable projects. His latest venture promises neck-snapping acceleration, pipe-dream battery and autonomous-driving technology, and a low-six-figure price.



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# **Nowhere Man**

When you don't know where you're going but you know where you need to be, you can get by with a little help from Dan's Friend.

I had a friend. For the purposes of this column, let's call him Dan's Friend. Or, if you're my mother, you may call him Daniel's Friend. Anyway, Dan's Friend was the only otherwise normally functioning person I've ever met who appeared to arrive at a time and place without knowledge of how he'd gotten to that time and place. It was as if his internal script just periodically rebooted, and he would start fresh wherever he happened to be. I always wondered what was going on in his head in those moments. Flashing lights and circus music, maybe? Whatever. It didn't seem to bother him.

I tell you this because I believe I finally know how he felt in those moments. But in my case, the cognitive dissonance is the fault of Google.

You see, I am a habitual Waze user. The trafficmonitoring, cop-spotting navigation app owned by Google is now a consistent, data-sucking part of my daily existence, an existence that features a minimum of 100 miles of driving each day. Waze is a godsend on my traffic-clogged, cop-dotted commute. With the proliferation of laser and instant-on radar, Waze can warn you about speed traps a detector might not register until you're getting a ticket. Yes, that feature relies on fellow users being diligent about flagging cops. But I like it—nay, I've grown dependent on it. For expediency, I allow it to track me in almost all my vehicular moves, guiding me to places both familiar and not.

"I was once convinced that my mind and Waze's algorithms were beginning to grow to-gether like a tree planted too close to a fence."

I now don't know where I'm going, but I always end up in the right place. Thanks to its excellent search function, I usually don't even need to know an address. I need only an approximation of the place's name. And when I arrive, by whatever novel route Waze has decided for me, I can't help but feel slightly lost.

I inherited my brain from my bog-dwelling ancestors. Left to its own devices, that brain would direct me to follow the wellworn and familiar paths. If it turns out that there happens to be a bear on that path, well, then I guess I'll encounter a bear.

But Waze doesn't think like a human brain. I have had the same 50-mile work commute for more than a decade. During the vast majority of that time, I followed the same route encompassing five expressways and a few surface streets, with only minor variations because of construction closures or whatnot. But in the last couple years, I have taken, well, I have no idea how many different routes I've taken. I lost count after 20. I couldn't retrace most of them if my life depended on it. How could an efficient route to Ann Arbor include a detour through a Detroit neighborhood so abandoned that it's in the process of being reclaimed by nature? But I end up at work. And I arrive there in what I assume is about the same amount of time my tried-andtrue route would have taken.

I was once convinced that my mind and Waze's algorithms were beginning to grow together like a tree planted too close to a fence so that, as it grows, it surrounds parts of the chainlink in bulbous tree flesh. I got my head around the idea that to work smoothly with Waze, I should begin to think of the directions for an upcoming expressway interchange not as "take I-75 south," but rather as two steps: "Take I-75 north and south then

> keep left for I-75 south." I figured that the tree and the fence were stronger together than apart. But now I'm thinking that perhaps the tree isn't growing much anymore. That there is only fence.

> I used to while away my time on long drives doing time-speed-distance calculations to monitor my progress and exercise my melon. Now I think of writing columns about how I have outsourced those mental calisthenics. Further, I've grown distrustful of the algorithm's motives. Is it sending me on this absurd path to get me to my destination in the most efficient way, or is it just using me to gather traffic data?

I think I'd like to gather my own data for my own purposes again. One thing: Could you guys send me real-time reports of speed traps on my route? Every day. Thanks.

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# t issued me the proper badge, dvance. In another case, there

# **Charging Ahead**

A Formula E race weekend isn't quite the Formula 1 show yet, but it's on its way, with real racing, French oversight, and Cacá Bueno.

I finally went to a Formula E race. The series, if you're not hip to the international openwheel electric racing scene, is like Formula 1 only slower. Yet every year, the cars improve and the races get more interesting. For the 2019–20 season, the cars max out at 335 horsepower in qualifying trim, but don't let that Camaro V-6 number fool you. The cars weigh less than a ton, run zero to 60 in a claimed 2.8 seconds, and top out at more than 170 mph. Formula E isn't in the performance realm of F1, but the cars are quick enough to put on a good show on the streets of Brooklyn.

The New York race, like all the races on Formula E's international schedule, is overseen by the FIA. Which, in case you didn't know, stands for Fédération Internationale de l'Automobile. As you may have inferred, that is an outfit of the French variety. The FIA differs from, say, NASCAR in that it operates on the premise that you are lucky to attend the race, you swine. The Brooklynites working the gates were invariably friendly and courteous, but once you're inside, you're in the FIA's world—a world of bracelets and badges and people frowning at your various bracelets and badges and telling you that you need a new bracelet and possibly another badge if you want to walk over there. At one point, Jaguar (which runs the I-Pace eTrophy support races and fields its own Formula E team, Panasonic Jaguar Racing) invited me to a paddock tour, but the FIA said I couldn't go because it hadn't issued me the proper badge, for which I'd dutifully applied in advance. In another case, there were two routes to a fan zone—one though an air-conditioned hallway, another outside in the merciless sun—and the route you took depended on your badge. Good thing I brought sunblock.

Because I have this strange fetish for race cars that are actually relevant to something you can buy, I was more interested in the I-Pace eTrophy cars than the open-wheel spec racers. The I-Pace is a fantastically weird starting point for a race car. The race version has slammed suspensions and a gutted interior, but it uses the same battery, motors, and inverter as the street car. One major difference: The Jag's air-conditioning system is repurposed to provide extra cooling for the battery. In that way, and in probably no other way at all, the I-Pace eTrophy is like a Hellcat Redeye with the Power Chiller.

The eTrophy races are entertaining because they pit pro drivers like Katherine Legge and the excellently named Cacá Bueno against amateur drivers. To score a seat as an amateur driver, you have to have skills and passion. And you have to have \$662,000. That last part is important, because that's what it costs to run an I-Pace for 10 races. That includes unlimited charging, though.

This was only the third year for the Brooklyn race, but you get the sense that Formula E has momentum. More carmakers have joined (this season has teams from Audi, BMW, Jaguar, Mercedes-Benz, Nissan, and Porsche), and it's becoming a destination to flaunt your new electric hotness. Harley-Davidson showed off the LiveWire, and Porsche ran a few laps with Taycans. I caught a ride around the circuit in an Audi e-tron, which didn't tell me much about the e-tron but did show me the tight-

ness of the track.

Before the race, I met with Michael Perschke, CEO of Automobili Pininfarina, to discuss the upcoming Battista, the company's 1900-hp electric car [see "Shocking Claims," page 20]. "The only way to do a car like this now is by going electric," said Perschke. "If you tried to do internal combustion, you could spend \$100 million and end up with the same performance as everyone else. This is something else. We're doing zero to 60 in 1.9 seconds. In a straight line, it's quicker than any Formula 1 car."

Wrap your brain around that. We're nearing the point where if you want ultimate performance, the only affordable path forward is electric. Formula E isn't going to surpass Formula 1. Eventually it will *be* Formula 1. Check it out while it's still funky.

Watching the race can be tricky when the barriers are taller than the cars.



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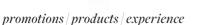


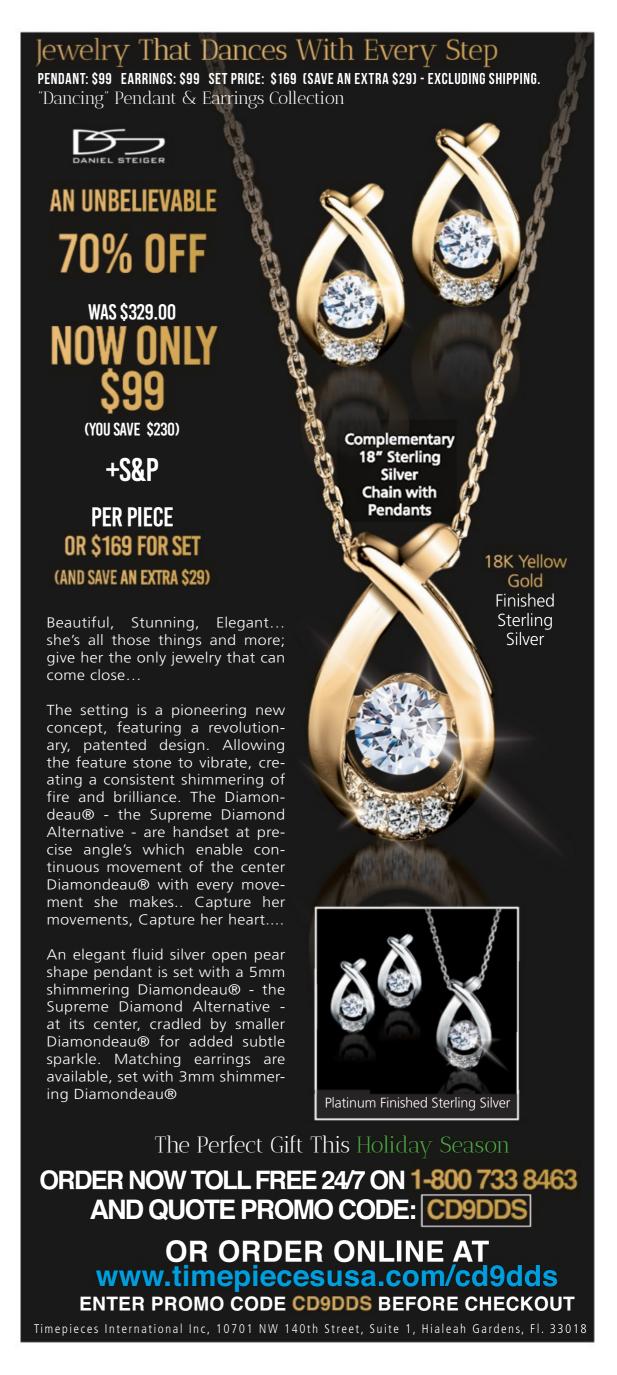
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## SIGNS POINT TO YES

#### By Rich Ceppos Photography by Marc Urbano

**High expectations are a bitch.** Whether you're anticipating Adele's next album, Ron Howard's next movie, or Christian Yelich's next at-bat, it's only human to feel a little deflated if it doesn't turn out just the way you'd dreamed it would. And so the deflation potential is high with the 2020 Chevrolet Corvette.

From the moment rumors surfaced that the engine in the next Corvette would move behind the seats, the presumption that the car would be a breakthrough, a revelation, and a revolution has followed it like a moon shadow. Now it's here. And it does look more like a Ferrari than a Chevrolet, with the same cabin-forward proportions as every hyperfast, megadollar exotic on the market. And we've driven it extensively. So, has Chevy built a supercar for the masses—an American Ferrari—or simply a better Corvette?

The answer is yes, but with an asterisk. It's complicated.

We did our judging by spending a week in a C8 equipped with the \$5000 track-capable Z51 Performance package and optional FE4 magnetorheological dampers (an additional \$1895), the hottest version available at launch. We drove it on the road. We tracktested it to scrutinize its performance capabilities. And we timed laps at Grattan Raceway outside of Grand Rapids, Michigan, in the C8 and a similarly equipped C7 Z51 to see whether the mid-engine





model's claimed handling advantage over its front-engine predecessor is real [see "Why Was 7 Afraid of 8?"].

After all that poking and prodding, we have concluded that the new C8 is spectacular, amazing, and supremely capable. Maybe even revolutionary. And we've also come to the realization that, despite its long list of compelling attributes, it's still not quite everything we had hoped it would be. Like we said, it's complicated.

Whatever the world's expectations for the C8, Chevrolet had its own. Yes, the company wanted to appeal to younger buyers who once tacked posters of Lamborghini Countachs to their bedroom walls. But the Corvette, once again called the Stingray, was designed to occupy the same place in the market as before. Some 50 percent of Corvette buyers purchase the entry model, which is why a base C8 (without the Z51 package) goes for just \$59,995, hundreds of thousands less than the McLarens, Ferraris, and Lamborghinis it resembles. Nor did the Corvette team want to shock its loyal owners with a car so alien, they couldn't abide it. "First we designed a mid-engine car," a Corvette team insider told us. "Then we had to

# CHEVROLET CORVETTE Z51

Plus: Can be laid back or ferocious as suits the situation, well-executed interior (finally!). Minus: Styling pales next to a Ferrari's, poor outward visibility, engine note too subdued around town. **Equals:** A stunningly capable, amazingly approachable supercar that demolishes the used-exotic value proposition.

turn it into a Corvette." That's the framework in which to judge the new C8.

Untangling our feelings about the C8 Stingray starts with examining its performance, which definitely lives up to expectations. With 60.6 percent of its mass over the rear tires, the C8 is ferocious off the line. (For reference, the C7 had a roughly 50/50 front/rear weight distribution.) Note that our heavily optioned test car weighed 3647 pounds, 195 more than the last C7 Z51 we tested—a 2019 model with a manual transmission. With the dual-mode performance exhaust included in the Z51 package, the LT26.2liter V-8 in the C8's tail makes 495 horsepower (base cars without that exhaust make 490). That's up 35 from the C7 Z51's output, which means the pounds-per-horsepower ratios of the two cars are virtually equal.

Aided by its quick-shifting dual-clutch automatic—the only transmission available—and a well-calibrated launch-control system, the C8 rips to 60 mph in 2.8 seconds. That's 1.1 seconds quicker than the C7 Z51. The C8 even betters the 60-mph runs of the quickest 650-hp C7 Z06 and 755-hp C7 ZR1 we tested, both of which lose the struggle to find grip in low gears. Yes, they are going faster than the new Vette by the end of the quarter-mile, which the C8 does in 11.2 seconds

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at 122 mph, but the point is made: The mid-engine layout pays dividends off the line.

The C8 stopped from 70 mph in 149 feet and hung on to the skidpad at 1.03 g's with quite a bit more understeer than we were expecting considering our experiences on the road. Neither of those chassis metrics are improvements over the C7, which stopped in 139 feet and circled the skidpad at 1.06 g's. Blame the Vette's weight gain. However, the full extent of the C8's handling superiority would play out during hot lapping at the racetrack.

While the C8's performance places it within the bounds of the supercar class, character matters as much as capability. It's here where your expectations will affect how you feel about the C8. Make no mistake, if you want to haul ass down a writhing piece of asphalt, this car will do it at astounding velocities, with a viselike grip on the pavement and the haughty assuredness of a car born to the task. There are six driving modes, and the FE4 damper package also includes the Performance Traction Management system for fine-tuning the car's stability control for track use. Switch into any of the more aggressive settings with the awkward-to-use dial on the center console, punch the push-button shifter into manual mode, and hang on. The faster you go, the better the C8 feels. The steering cuts like a race car's,



and the cornering limits are virtually out of reach on the street—though steering feel and feedback aren't as communicative as a Porsche 911's or a McLaren 720 S's. Boiling out of corners on full throttle, the big V-8 thunders like a NASCAR engine, and the transmission delivers crisp shifts when you pull the paddles.

Most of the time, you won't be blazing twisty roads like a four-wheeled flamethrower; you'll be wanting a car that's a little more mellow. Bimodal, everyday usability has long been a Corvette trait, and the C8 continues that tradition. In Tour mode, it transmogrifies into a laid-back daily driver,

#### WHY WAS 7 AFRAID OF 8?

We pit the C7 against the 8 to see if the mid-engine model is quicker around a track.

Engineering theory states that, all things being equal, a mid-engine car's rear-biased weight distribution should enable it to lap a racetrack quicker than a front-engine car. To find out if Chevrolet has turned theory into reality, we pitted the C8 against the front-engine C7

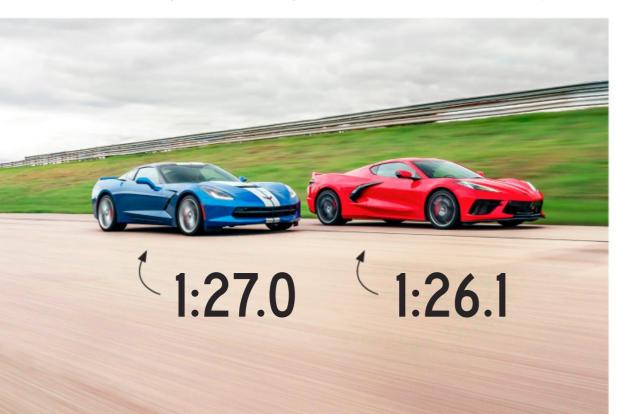
at Michigan's Grattan Raceway.

Both cars were equipped with Z51 packages, adaptive dampers, and eight-speed automatics. Both had additional wheel camber dialed in as recommended for track use. Both wore Chevrolet-developed Michelin summer tires, though the C8 had the latest Pilot Sport 4S rubber, whereas the C7 wore the older Pilot Super Sports. We turned off stability control so that we could detect even the most minute chassis differences, and we turned on the Racelogic VBox LapTimer.

After about a dozen laps bat-

tling Grattan's 2.2 miles of heaving pavement in each car, engineering theory won: The C8 turned a best lap of 1:26.1, the C7 a 1:27.0. A roughly one-second difference might not sound like much, but consider that after just a half-dozen laps, the C8 would cross the finish line as the C7 pulls onto Grattan's straight. The C8 braked later into several corners and accelerated harder out of others-though the C7 narrowed the gap in a couple spots. Through the 100-mph sweeper feeding the main straight, the C8 was about 3 mph faster. It hit 142 mph before braking into Turn 1 to the C7's 140, and then braked with 1.16 g's to the C7's 1.00. It registered a max of 1.32 g's in the banked Turn 8 hairpin versus the C7's 1.30 g's.

But such close lap times don't convey how much easier it is to go fast in the C8. It cuts more cleanly into turns, and its rear tires are more planted exiting them; the C7's tail is nervous and twitchy by comparison. Indeed, the C8 feels as approachable on the track as it does on the road. That's a rare combination, one worthy of respect. The C8 has ours. –RC





The C8 leverages the improved launch traction that comes with moving the V-8 behind the driver. Its 2.8-second time to 60 makes it the quickest Vette on record.



with a ride smoother than that of many sports sedans, steering lighter than a Malibu's, and an engine note that's barely a murmur. The dual-clutch automatic eases through its eight gears unnoticed, though it can be a bit lazy to downshift if you stab the throttle. Extensive acoustic insulation has made the new Corvette not only quieter than the old by three decibels at 70 mph, but just plain quiet. This kind of dynamic bandwidth is almost unheard of in the mid-engine exotic species.

There are three seat options in the C8: GT1, GT2 (included in our car's 3LT trim), and the aggressive Competition Sport buckets. The GT2 chairs were soft in the right places yet wonderfully supportive for amped-up cornering. This is a car you can drive anytime, anywhere—including clear across the country—without it tiring you out. Plus, it has useful space in the front and rear cargo holds. So go ahead; take it to the supermarket.

But normal driving is also where the C8 gets tripped up by elevated expectations. More than a few of us were hoping for more character, more drama, and more personality when we weren't hammering it. Ferraris and Lamborghinis snarl at you like caged tigers even when you're just moseying through downtown. The steering of Porsches and McLarens is more vivid than the Corvette's. We sometimes wished the new Stingray felt a little louder and a little more raw, a bit more like the C7. Can a car that looks this angry actually be too refined? That's where the asterisk comes in: The C8 is great, but.

We have few reservations about the new Stingray's interior, though. Our car, a well-equipped example with the \$11,950 3LT package, boasted supple, tautly sewn leather on most surfaces plus extras like \$1500 carbon-fiber trim. You sit farther forward compared with the seating position in the C7, though the view over the deep instrument panel isn't as panoramic as it is in some other mid-engine cars. The wall-like cabin divider that houses the HVAC controls looks obtrusive but isn't. The squared-off steering wheel is, surprisingly, as easy to use as a circular one, and it provides a clear view of the digital gauges.

#### **Counterpoints**



The C8 looks as obnoxious as an unmuffled Harley-Davidson sounds, but it has refinement that belies its superhero-costume

looks. It rides well and isn't noisy inside, and the exhaust isn't loud enough to piss off the neighbors. Instead of blasting the world, the V-8's chorus is played for the occupants through the intake. Aside from a cramped interior, the C8 would be a fantastic daily driver. Now, if you insist on a loud and immature C8, the aftermarket will certainly help you ruin it. —*Tony Quiroga* 



Among the many promises of the mid-engine configuration is an unobstructed view forward, where the pavement appears to be

whizzing by ahead of your toes. But compared with a McLaren 720S's, the Corvette's hood blocks four more feet of road. The Acura NSX and Porsche 718 Cayman also provide better visibility, but get this: so did the front-engine C7. Not helping is an extraordinarily long dash with much distracting topography. It's a rare miss in an otherwise revolutionary new Corvette. —Dave VanderWerp

The steering-column stalks are a bit of a reach, and the glare on the rear glass sometimes hides what's behind you. The electronic display in the rearview mirror that comes standard on 2LT and 3LT trims solves this problem by showing you what's back there via a camera feed. Overall, this is by far the best Corvette interior ever.

It's also the most impressive Corvette ever. Deleting all the fancy gear on our test car—it had all manner of extras that didn't make it drive any better, including a \$1495 front-end lift mechanism to clear steep driveways and \$995 worth of carbon-fiber engine-compartment trim—wouldn't change how we feel about it. But it would drop the price considerably. For a base car with the Z51 package and FE4 dampers, you're looking at only \$66,890. This is nothing less than the democratization of the exotic car.

And consider this: The C8 Stingray is but the opening salvo in Chevrolet's supercar revolution. It's an open secret that several hotter C8s will soon follow, powered by high-revving, DOHC 32-valve flat-plane-crank V-8s starting at 600-plus horsepower and ranging up to a hybrid with nearly 1000 horses. Those should deliver all the snarl anyone could want.

That's the future. This is now, and it's clear that the new C8 isn't just a better Corvette, but a supercar for the rest of us—imperfections be damned. You'll just have to readjust your expectations to suit.

32 DECEMBER 2019 ~ CAR AND DRIVER

#### 2020 CHEVROLET **CORVETTE** STINGRAY Z51

**Price** \$88,310 As Tested ... Base

**Vehicle Type:** mid-engine, rear-wheel-drive, 2-passenger, 2-door targa

Options: 3LT Equipment package, \$11,950; visible carbon-fiber roof panel, \$2495; Magnetic Selective Ride Control and Performance Traction Management, \$1895; carbon-fiber interior trim, \$1500; front-axle lift, \$1495; Spectra Gray wheels, \$1495; carbon-fiber engine trim, \$995; Sebring Orange paint, \$995; orange seatbelts, \$395; Carbon Flash Metallic mirrors and spoiler, \$100 Audio System: satellite radio; USB, minijack, and Bluetooth-audio inputs; Android Auto and Apple CarPlay interfaces; 14 speakers

#### **Engine**

V-8, aluminum block and heads **Bore x Stroke** ..... 4.06 x 3.62 in, 103.3 x 92.0 mm Fuel Delivery: direct injection Valve Gear: pushrods, 2 valves per cylinder, variable intake- and exhaust-valve timing ... 6500/6600 rpm Redline/Fuel Cutoff .... 495 hp @ 6450 rpm Power Torque .... ..... 470 lb-ft @ 5150 rpm

#### Drivetrain

**Transmission:** 8-speed dual-clutch automatic **Final-Drive Ratio** ....... 5.17:1, electronically controlled limited-slip differential

#### Steering

rack-and-pinion with variable ratio and variable electric power assist Overall Ratio.. Turns Lock-to-Lock .. Turning Circle Curb-to-Curb ....

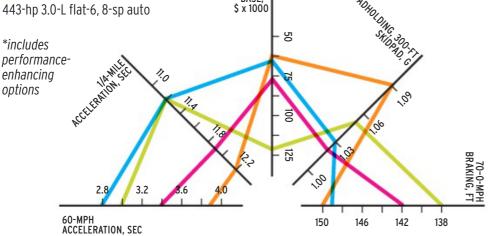
#### **COMPETITORS**

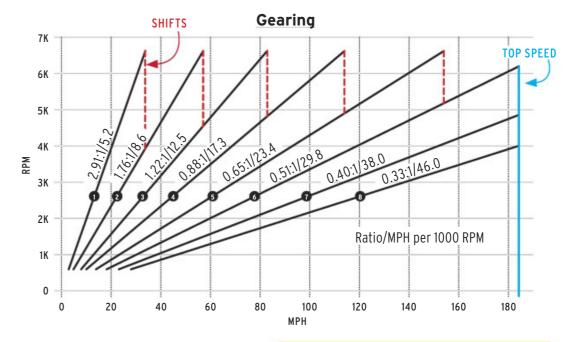
The Corvette has changed; its purpose hasn't. It is a terrific performance value.

- Chevrolet Corvette Stingray Z51 495-hp 6.2-L V-8, 8-sp auto
- Ford Mustang Shelby GT350
- 526-hp 5.2-L V-8, 6-sp man **Porsche 718 Cayman S**
- 350-hp 2.5-L flat-4, 7-sp auto Porsche 911 Carrera S

\*includes performanceenhancing

options





#### Chassis

aluminum spaceframe Body Material: sheet-molded composite

#### Suspension

F: ind, unequal-length control arms, coil springs, 3-position electronically controlled magnetorheological dampers, anti-roll bar R: ind, unequal-length control arms and a toe-control link, coil springs, 3-position electronically controlled magnetorheological dampers, anti-roll bar

#### **Brakes**

F: 13.6- x 1.2-in vented disc, 4-piston fixed caliper **R:** 13.8- x 1.1-in vented disc, 4-piston fixed caliper **Stability Control:** fully defeatable, traction off, competition modes, launch control

#### Wheels and Tires

**Wheel Size** ...... **F:** 8.5 x 19 in **R:** 11.0 x 20 in Wheel Construction: cast aluminum Tires: Michelin Pilot Sport 4S ZP F: 245/35ZR-19 (89Y) TPC R: 305/30ZR-20 (99Y) TPC

#### **Exterior Dimensions**

| Wheelbase | 107.2 in                            |
|-----------|-------------------------------------|
| Length    | 182.3 in                            |
|           | 76.1 in                             |
| Height    | 48.6 in                             |
|           | <b>F:</b> 64.9 in <b>R:</b> 62.4 in |

#### **Interior Dimensions**

| Passenger voi | ume | וכ | cu | π  |
|---------------|-----|----|----|----|
| Cargo Volume  |     | 13 | cu | ft |

#### **Acceleration** 11.2 @ 122 100 2.8 SEC Rollout, 1 ft Rolling Start, 5-60 mph ...... 3.5 sec ..... 184 mph Top Speed ..... (drag ltd, mfr's claim) Weight ......3647 lb Handling Roadholding, 300-ft Skidpad ..... 1.03 g **Understeer: moderate Braking** 70-0 mph 149 ft 100-0 mph **301 ft** Fade Rating: none **Interior Sound Level** Full Throttle 70-mph Cruising ..... Capacity ..... ..... 18.5 gal **EPA City** ...... 16 mpg\* C/D 75-mph Highway Driving .... 26 mpg C/D Highway Range ...... 480 mi

**TEST RESULTS** 









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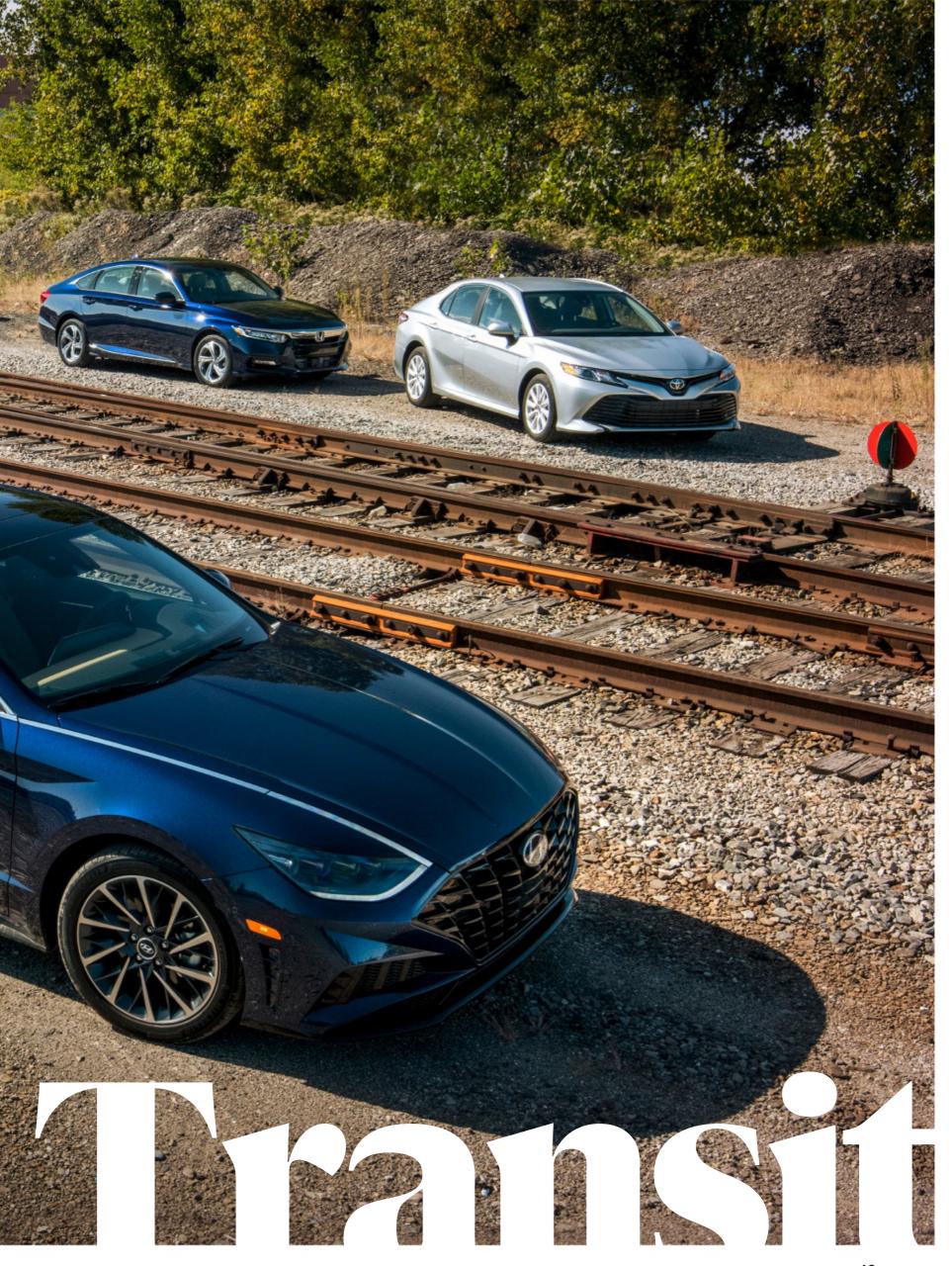
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If you ever find yourself shoulder to shoulder in a car with a disheveled bum who's belching the ABCs while clipping their toenails and swilling salsa straight out of the jar, chances are you know the person. It's possible you're even married to them. Until we can say the same about a ride in San Francisco's BART, we will continue to favor the four-wheeled version of mass transit, where at least the freaks are our loved ones.



In mid-size-sedan form, this mass transit is affordable and efficient, with ample personal space for five, and—when you're the driver—always running on your schedule under your rules. With American automakers turning their attention to higher-margin crossovers, all five competitors in this test come from Asian manufacturers, although we feel compelled to point out that all are built here in the U.S.

We aimed to test well-equipped models with entry powertrains and prices around \$30,000. For the Honda Accord, that turns out to be a \$31,050 EX-L. The middle-rung model has adaptive cruise control, lane-keeping assist, and leather-wrapped cabin surfaces, and it draws power from a turbocharged 1.5-liter inline-four. Honda offers the only manual transmission in the segment, which we'd love to own, but instead we opted to test the continuously variable automatic for the sake of parity.

The new 2020 Hyundai Sonata pairs a boosted 1.6-liter inline-four with an eight-speed automatic and what we mostly agree is sharp styling—up until someone mentions the polarizing chrome ribbon running from each headlight to the window trim. The roughly \$33,000 Limited model shown here is easily the content king of the test, with a feature list that could fill a CVS receipt.

In SR guise, the new-for-2019 Nissan Altima is on the lower end of the trim-level spectrum. A CVT and a 2.5-liter four are familiar from the previous generation, but they can now be partnered with an all-wheel-drive system that serves as a sort of vaccine against buying a crossover. Our test model skips many of the luxuries of the Hyundai and the Subaru and starts at \$27,945. A handful of gratuitous accessories, such as splash guards and underbody lighting, lift the total price to \$30,720.

An all-wheel-drive Altima is a direct and almost personal attack on the new 2020 Subaru Legacy. For decades, Subaru has owned the all-wheel-drive mid-size-sedan segment—indeed, it has mostly been the segment in its entirety. Pow-



ered by a 182-hp 2.5-liter flat-four, a mid-level Sport trim with optional blind-spot monitoring, sunroof, and navigation comes out to \$30,090. A CVT is standard here, too.

Finally, we have the oddball of the group, a stripper of a Toyota Camry. At \$26,183 with floor mats and door-edge protectors as its only options, this LE is about as basic as you can get. We asked Toyota if it wanted to field something just a touch flashier, and the company's reps were adamant that this value play was an intentional decision. The Camry is powered by a 2.5-liter inline-four driving the front wheels through an eight-speed automatic.

We're missing one car. When we last ran a family-sedan comparison, in 2016, the Mazda 6 claimed a win over the Chevrolet Malibu and last-generation versions of the Accord

and Camry. Mazda could provide only a pricey 6 with its uplevel 250-hp turbo 2.5-liter for this test, so we left it out. As a consolation, know that the Accord has earned a spot on our 10Best list for 22 years running. The Mazda's last win was in 2015.

Enough with the introductions. Please set down the nail clippers and salsa and let's take a ride through the current mid-size-sedan pecking order.

## 5th Place: The Subaru

Subaru sells a Legacy "Sport" in the same sense that Arby's sells "food." On the Legacy, Sport means nothing more than a decade-out-of-date cliché—black wheels and trim, a spoiler, some red stitching. "There's nothing here that's perceptibly sporty," observed testing director Dave VanderWerp. Quite the opposite, actually.

It's like driving a trampoline. With springs and dampers this soft, the Legacy sops up even the biggest potholes before they can jolt the driver. It's not a partic-

Subaru Legacy Plus Clear sightlines in every direction, better than riding the bus. Minus Slow, noisy, and thirsty; like a bounce house without the fun. Equals Its driving dynamics leave us wanting more sportiness.







It might not look all new, but the Legacy has been completely redesigned for 2020. Interior quality is much improved, but the touchscreen's responses are sluggish. ularly comfortable kind of soft, though. As the Subaru's body flops, bounces, and porpoises awkwardly over rough roads, the driver's head sways, bobs, and nods constantly. This is apparently what makes a Subaru

a Subaru, because the Legacy drives with the same squishy apathy as the Ascent, the Forester, and the Outback.

The boxer-four reluctantly does its work with a belly-ache moan, and wind noise seeps into the cabin around 50 mph, earlier than in the competitors. The CVT is sometimes indecisive at part throttle; revs build, momentarily pause, resume climbing, pause again, then climb some more. Push the accelerator to the floor and the flat-four bellows as the Legacy plods to 60 mph in a slowest-in-test 8.0 seconds. The Subaru doesn't need all-wheel drive to harness its 182 horse-power, which means that extra driveline hardware is dead weight unless you're stuck in a snowbank. At 3540 pounds,

the Legacy weighs 111 pounds more than the all-wheel-drive Altima, and it suffers a 3-mpg hit in observed fuel economy relative to the most efficient cars in this test.

The Subaru does offer excellent outward visibility from the driver's seat. It's also a solid value, with a list of driver-assistance and convenience features to rival the Hyundai. But those small victories can't outweigh its dynamic shortcomings. Among the many better sedans, the Altima has erased the Legacy's all-wheel-drive advantage. That leaves the 11.6-inch touchscreen as the Subaru's single distinguishing trait, and even that is flawed. The graphics belong on a children's tablet, and the response time can be sluggish. The vertical orientation also means that the Android Auto and Apple Car-Play interfaces use only about one-third of the available real estate, appearing smaller than they do in the Honda and the Hyundai.

Losing is never easy, Sport, but I know something that will ease the pain. Let me buy you a Beef 'n Cheddar.



|  | 2019 Honda<br>Accord 1.5T EX-L   | 2020 Hyundai<br>Sonata Limited 1.6T  | 2020 Nissan<br>Altima 2.5 SR AWD   | 2020 Subaru<br>Legacy Sport   | 2020 Toyota<br>Camry LE   |  |  |  |
|--|--|--|--|---|---|--|--|--|
| Base/As Tested   | \$31,050/\$31,050  | \$33,000*/\$33,000*  | \$27,945/\$30,720  | \$27,845/\$30,090   | \$25,795/\$26,183   |  |  |  |
| Dimensions Wheelbase Length/Width/Height Track, F/R Interior Volume, F/R Cargo Volume  | 192.2/73.3/57.1 in<br>63.0/63.4 in<br>54/ <b>49 cu ft</b>  | 111.8 in<br>192.9/73.2/56.9 in<br>63.7/64.0 in<br><b>59</b> /42 cu ft<br>16 cu ft  | 111.2 in<br>192.9/72.9/57.4 in<br>62.8/62.8 in<br>58/43 cu ft<br>15 cu ft  | 108.3 in<br>190.6/72.4/59.1 in<br>62.2/63.4 in<br>54/ <b>49 cu ft</b><br>15 cu ft   | 111.2 in<br>192.1/72.4/56.9 in<br>62.6/62.8 in<br>54/47 cu ft<br>15 cu ft   |  |  |  |
| Powertrain Engine  Power, HP @ RPM Torque, LB-FT @ RPM Redline/Fuel Cutoff LB per HP   | 192 @ 1600<br>6500/6200 rpm  | turbocharged DOHC<br>16-valve inline-4<br>98 cu in (1598 cc)<br>180 @ 6000<br>195 @ 1500<br>6500/6000 rpm<br>18.5                      | DOHC 16-valve inline-4<br>152 cu in (2488 cc)<br>182 @ 6000<br>178 @ 3600<br>6400/6300 rpm<br>18.8                                     | DOHC 16-valve flat-4<br>152 cu in (2498 cc)<br>182 @ 5800<br>176 @ 4400<br>6000/5800 rpm<br>19.5                                      | DOHC 16-valve inline-4<br>152 cu in (2487 cc)<br><b>203</b> @ 6600<br>184 @ 5000<br>6800/6800 rpm<br><b>16.5</b>                        |  |  |  |
| <b>Driveline</b> Transmission Driven Wheels Final-Drive Ratio:1  | front  | 8-speed automatic<br>front<br>3.32   | CVT<br>all<br>4.83   | CVT<br>all<br>3.70  | 8-speed automatic<br>front<br>2.80  |  |  |  |
|  | F: struts, coil springs, anti-roll bar R: multilink, coil springs, anti-roll bar   | F: struts, coil springs,<br>anti-roll bar<br>R: multilink, coil<br>springs, anti-roll bar  | F: struts, coil springs, anti-roll bar R: multilink, coil springs, anti-roll bar   | F: struts, coil springs,<br>anti-roll bar<br>R: multilink, coil<br>springs, anti-roll bar   | F: struts, coil springs, anti-roll bar R: multilink, coil springs, anti-roll bar  |  |  |  |
|  | <b>F:</b> 11.5-in vented disc<br><b>R:</b> 11.1-in disc<br>partially defeatable  | <b>F:</b> 12.8-in vented disc <b>R:</b> 11.8-in disc partially defeatable,   | <b>F:</b> 11.7-in vented disc <b>R:</b> 11.0-in disc partially defeatable  | <b>F:</b> 12.4-in vented disc <b>R:</b> 11.8-in vented disc partially defeatable,   | <b>F:</b> 12.Ö-in vented disc<br><b>R:</b> 11.1-in disc<br>partially defeatable,  |  |  |  |
| Tires  | Hankook Kinergy GT<br>225/50R-17 94V M+S   | traction off<br>Michelin Primacy Tour<br>A/S<br>235/45R-18 94V M+S   | Hankook Kinergy GT<br>235/40R-19 92V M+S   | traction off<br>Yokohama Avid GT<br>225/50R-18 95V M-S  | traction off<br>Bridgestone Ecopia<br>EP422 Plus<br>215/55R-17 94V M+S  |  |  |  |
| TEST RESULTS Acceleration  |  |  |  |   |   |  |  |  |
| Rollout, 1 FT<br>30 MPH  |  | 0.3 sec<br>2.6 sec   | <b>0.3 sec</b> 2.9 sec   | <b>0.3 sec</b> 3.0 sec  | 0.3 sec<br>2.6 sec  |  |  |  |
| Rollout, 1 FT<br>30 MPH<br>60 MPH  | 2.7 sec<br><b>6.6 sec</b>  | <b>2.6 sec</b> 7.3 sec   | 2.9 sec<br>7.4 sec   | 3.0 sec<br>8.0 sec  | <b>2.6 sec</b> 7.3 sec  |  |  |  |
| Rollout, 1 FT 30 MPH 60 MPH 100 MPH 110 MPH 1/4-Mile @ MPH Rolling Start, 5-60 MPH Top Gear, 30-50 MPH Top Gear, 50-70 MPH   | 2.7 sec<br>6.6 sec<br>16.2 sec<br>20.4 sec<br>15.1 sec @ 97<br>7.2 sec<br>3.9 sec  | 2.6 sec  | 2.9 sec  | 3.0 sec   | 2.6 sec   |  |  |  |
| Rollout, 1 FT 30 MPH 60 MPH 100 MPH 110 MPH 1/4-Mile @ MPH Rolling Start, 5-60 MPH Top Gear, 30-50 MPH Top Gear, 50-70 MPH   | 2.7 sec<br><b>6.6 sec</b><br><b>16.2 sec</b><br><b>20.4 sec</b><br><b>15.1 sec @ 97</b><br><b>7.2 sec</b><br>3.9 sec<br><b>4.9 sec</b><br>118 mph (gov ltd)<br>176 ft<br>0.87 g† | 2.6 sec<br>7.3 sec<br>20.0 sec<br>25.8 sec<br>15.6 sec @ 90<br>7.8 sec<br>4.3 sec<br>5.1 sec   | 2.9 sec<br>7.4 sec<br>19.7 sec<br>25.3 sec<br>15.8 sec @ 91<br>8.3 sec<br>4.8 sec<br>5.6 sec   | 3.0 sec<br>8.0 sec<br>22.0 sec<br>28.9 sec<br>16.2 sec @ 88<br>8.6 sec<br>4.5 sec<br>5.8 sec  | 2.6 sec<br>7.3 sec<br>19.0 sec<br>23.5 sec<br>15.7 sec @ 92<br>7.9 sec<br>3.8 sec<br>5.5 sec  |  |  |  |
| Rollout, 1 FT 30 MPH 60 MPH 100 MPH 110 MPH 1/4-Mile @ MPH Rolling Start, 5-60 MPH Top Gear, 30-50 MPH Top Gear, 50-70 MPH Top Speed  Chassis Braking, 70-0 MPH Roadholding, 300-FT Skidpad 610-FT Slalom  Weight  | 2.7 sec<br>6.6 sec<br>16.2 sec<br>20.4 sec<br>15.1 sec @ 97<br>7.2 sec<br>3.9 sec<br>4.9 sec<br>118 mph (gov ltd)<br>176 ft<br>0.87 g†<br>40.5 mph†                              | 2.6 sec 7.3 sec 20.0 sec 25.8 sec 15.6 sec @ 90 7.8 sec 4.3 sec 5.1 sec 135 mph (gov ltd)  167 ft 0.89 g                               | 2.9 sec 7.4 sec 19.7 sec 25.3 sec 15.8 sec @ 91 8.3 sec 4.8 sec 5.6 sec 119 mph (gov ltd)  176 ft  0.91 g                              | 3.0 sec 8.0 sec 22.0 sec 28.9 sec 16.2 sec @ 88 8.6 sec 4.5 sec 5.8 sec 130 mph (gov ltd)  174 ft 0.84 g                              | 2.6 sec 7.3 sec 19.0 sec 23.5 sec 15.7 sec @ 92 7.9 sec 3.8 sec 5.5 sec 131 mph (gov ltd)  175 ft 0.83 g†                               |  |  |  |
| Rollout, 1 FT 30 MPH 60 MPH 100 MPH 110 MPH 110 MPH 1/4-Mile @ MPH Rolling Start, 5-60 MPH Top Gear, 30-50 MPH Top Gear, 50-70 MPH Top Speed  Chassis Braking, 70-0 MPH Roadholding, 300-FT Skidpad 610-FT Slalom  Weight Curb   | 2.7 sec<br>6.6 sec<br>16.2 sec<br>20.4 sec<br>15.1 sec @ 97<br>7.2 sec<br>3.9 sec<br>4.9 sec<br>118 mph (gov ltd)<br>176 ft<br>0.87 g†<br>40.5 mph†<br>3209 lb<br>59.7/40.3      | 2.6 sec 7.3 sec 20.0 sec 25.8 sec 15.6 sec @ 90 7.8 sec 4.3 sec 5.1 sec 135 mph (gov ltd)  167 ft  0.89 g 40.9 mph†                    | 2.9 sec 7.4 sec 19.7 sec 25.3 sec 15.8 sec @ 91 8.3 sec 4.8 sec 5.6 sec 119 mph (gov ltd)  176 ft  0.91 g 41.4 mph†                    | 3.0 sec 8.0 sec 22.0 sec 28.9 sec 16.2 sec @ 88 8.6 sec 4.5 sec 5.8 sec 130 mph (gov ltd)  174 ft 0.84 g 38.1 mph†                    | 2.6 sec 7.3 sec 19.0 sec 23.5 sec 15.7 sec @ 92 7.9 sec 3.8 sec 5.5 sec 131 mph (gov ltd)  175 ft 0.83 g† 38.5 mph†                     |  |  |  |
| Rollout, 1 FT 30 MPH 60 MPH 100 MPH 110 MPH 110 MPH 1/4-Mile @ MPH Rolling Start, 5-60 MPH Top Gear, 30-50 MPH Top Gear, 50-70 MPH Top Speed  Chassis Braking, 70-0 MPH Roadholding, 300-FT Skidpad 610-FT Slalom  Weight Curb %Front/%Rear  Sound Level Idle/Full Throttle 70-MPH Cruise  Fuel Capacity | 2.7 sec 6.6 sec 16.2 sec 20.4 sec 15.1 sec @ 97 7.2 sec 3.9 sec 4.9 sec 118 mph (gov ltd)  176 ft  0.87 g† 40.5 mph†  3209 lb 59.7/40.3  | 2.6 sec 7.3 sec 20.0 sec 25.8 sec 15.6 sec @ 90 7.8 sec 4.3 sec 5.1 sec 135 mph (gov ltd)  167 ft  0.89 g 40.9 mph†  3328 lb 60.0/40.0 | 2.9 sec 7.4 sec 19.7 sec 25.3 sec 15.8 sec @ 91 8.3 sec 4.8 sec 5.6 sec 119 mph (gov ltd)  176 ft  0.91 g 41.4 mph†  3429 lb 58.9/41.4 | 3.0 sec 8.0 sec 22.0 sec 28.9 sec 16.2 sec @ 88 8.6 sec 4.5 sec 5.8 sec 130 mph (gov ltd)  174 ft 0.84 g 38.1 mph†  3540 lb 58.7/41.3 | 2.6 sec 7.3 sec 19.0 sec 23.5 sec 15.7 sec @ 92 7.9 sec 3.8 sec 5.5 sec 131 mph (gov ltd)  175 ft  0.83 g† 38.5 mph†  3353 lb 59.8/40.2 |  |  |  |



There's a lot of Maxima in the Altima's styling and some sports sedan in its handling. If its optional all-wheel-drive system stops the sale of a Rogue, we consider that a win.





## 4th Place: The Nissan

Yes, we're guilty of grading on a curve here, but second to last strikes us as a big win for the Altima. Notice that it nearly snuck into third, ahead of the salesgiant Camry. After years of pulse-lowering performance, the Altima is finally showing signs of life.

There are shades of sports sedan lurking in the Nissan's chassis tuning.

The all-season Hankooks hang on to the road with a tenacious 0.91 g of lateral grip. With its quick and light steering, the Altima turns eagerly into bends. And the firm brake pedal is easily modulated.

The harder you push it, though, the more disjointed the Altima feels. It is faster than it is fluid. Some drivers found the steering too quick and darty. We all agreed the ride is brittle and needs more damping compliance.

Nissan's stubborn devotion to the CVT finally pays off with some agreeable manners. At part throttle, the transmission executes almost convincing, simulated upshifts. They allow the revs to rise and fall as the car accelerates so that the 2.5-liter inline-four never lingers on a discordant note for too long. You have to dig in your spurs if you want the Altima to gallop. Unlike the lively chassis, the powertrain prefers to loaf. It's good at that, at least. Despite lugging and churning that all-wheel-drive hardware, the Nissan tied the Toyota



Nissan Altima Plus Holds its own in corners, CVT does a decent job mimicking a conventional automatic. Minus Flinty ride, abysmal rearward visibility, light on convenience features. Equals An injection of character into the Altima gives us hope for Nissan.

and the Hyundai at 31 mpg. Still, the all-wheel-drive system is probably more trouble than it's worth. Opting for it hikes up the rear of the car, which, combined with the high parcel shelf and the large center brake light, gives the driver a perfect view of the sky behind them.

With wind, engine, and road noise equally in check, the Altima is tranquil at highway speeds. Cushy front seats swallow you like the 40-year-old sofa in Mom's basement, although they don't offer much in the way of long-haul support. Everything you grab, push, pull, turn, and touch inside the cabin looks and feels right. It's the hard plastic expanses in between that make the Altima appear cheaper than it is. The Nissan is also missing a number of features expected at this price, such as heated seats. If a \$26,183 Camry comes with adaptive cruise control, so should a \$30,720 Altima. A little more stuff would go a long way here.

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## 3rd Place: The Toyota

The Camry's beige phase is finally over. Newly edgy Toyota is now experimenting with 50 shades of Camry gray. We counted seven different grayscale finishes on the driver's door panel alone. The seats are upholstered with cinder bolsters, smoky inserts, and dark-steel stitching. Painted in complementary any-car silver, this particular Camry won't help Toyota shake the car-as-an-appliance stigma.

That's a shame, because if you get intimate with a Camry on a winding road, you'll discover it's a freak. In a good way. The most powerful engine in the test revs with more verve and stretches higher on the tach, topping out at 6800 rpm. Compared with the labored exertion of the naturally aspirated Nissan and Subaru engines, the Toyota four-cylinder pulls assertively in around-town passing maneuvers. Graceful shifts from the eight-speed automatic make even the best CVTs feel gelatinous. And no matter how close you come to its limits, the Camry never loses composure. The heft of the steering doesn't waver, and the dampers always keep body motions in check.

This is not the car's public persona, though. Drive it like an accountant would and the Toyota disappears around you thanks to pillowy damping, arrow-straight highway tracking, and comfortable seats. The Camry is the same reliably predictable transportation that it's always been to indifferent drivers. That's a good thing, because the Camry is a shining example that an enthusiast's desires and a commuter's needs aren't diametrically opposed. A car that handles well will always feel controlled, and a car that rides well will corner confi-

dently over broken pavement.

The Camry's unexpected competence isn't enough to spark any passion, though. We respect it, but we don't aspire to own one. And despite the

Owning the middle is what Camrys do, right? We're not crazy about the exterior. Or the interior, really. But like the best Camrys of the past, it just works.

stylists' best efforts to scare onlookers into noticing it, the Camry's design is no more suggestive than a Land's End shirt. Mostly, we just want to look away.

The interior, awash in simple plastics, is even more disappointing. The urethane steering wheel is as inviting as the Bowflex in your spare bedroom. The screens in the center stack and instrument cluster are small, low-resolution things. And the engine emits a diesel-like grittiness

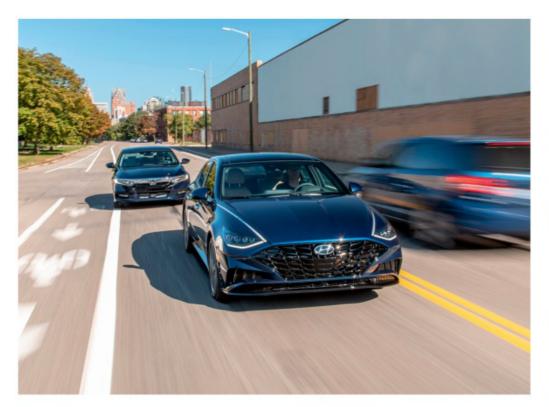
at low rpm that becomes a thrashy buzz when pushed harder. For us, living with these flaws isn't worth the discount the Camry offers over the competitors that finished ahead of it.

Toyota Camry Plus Assertive powertrain, competent cornering, as comfortable as ever. Minus Gritty engine vibrations, cringe-inducing styling, makes a Michigan winter look cheery. Equals It drives better than you think, even if it is still a Camry in earnest.













Left: LED lights run up the fender and give the Sonata

the penciled-in eyebrows

of your sweet Aunt Mildred.

Interior design and quality

are class leading.

## 2nd Place: The Hyundai

Looking almost Audi-esque in profile and stuffed with more tech and luxury than any of the other sedans, the Sonata gives off the impression that it's been entered into the wrong test. It hasn't. This is just typical Hyundai delivering more car than you pay for.

It's fitting that the turbocharged cars placed first and second in this comparison test. By pumping more air into an otherwise meek four-cylinder, a turbo breathes enthusiasm into the car. Thanks to its heap of low-end torque, you'd never guess that the Sonata's 180-hp 1.6-liter engine is the least powerful of the five here. And while the Camry hits 60 mph in the same 7.3 seconds, the Sonata feels more refined and less strained in accomplishing the feat. Around town, the Hyundai's eight-speed automatic shuffles gears quickly

and efficiently, with none of the sluggishness inherent in a CVT.

The suspension dithers between too soft and too stiff, depending on what you're doing at the moment. Take a corner at speed and the Sonata rolls only slightly less than the Subaru. Drive over a patchwork asphalt repair and the Michelin tires thwack the road with short, hard hits.

A small tornado's worth of wind noise makes its way into the cabin, which is surprising because the Sonata is the only car here with dual-pane glass in the front doors. Both tall and short drivers found the Hyundai's seating position too high. With no shortage of crossovers available for drivers who need to sit on a perch, why sully sedans with this clumsy flaw? The Sonata's rear seat is roomy for two people but not three. Strangely, Hyundai scallops the headliner only over the outboard seats.

The Sonata distracts from its rough edges with leather, screens, and dramatic styling to convince you the car costs another \$5000. The list of features on our Limited

model includes a digital instrument cluster, heated and ventilated front seats, a competent lane-centering system, and the ability to

of a tight parking space with the key fob while the driver

This Sonata drives better and looks more fashionable than any prior generation, but its presiding strength is the same as any Hyundai's: value. That current strategy has vaulted Hyundai from bottom-rung fodder to front-of the-pack finisher, but it might be time to shift the focus. Comparo winners offer a level of polish that a value play rarely achieves.

move the car into and out stands next to the car.

Hyundai Sonata Plus Assertive, torquey engine; loaded with tech; big parking-lot presence. Minus Awkwardly high seating, confused suspension tuning, a tornado of wind noise. Equals Despite constant improvement, Hyundai still does value better than dynamics.



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## 1st Place: The Honda

Honda's 3209-pound sedan drives nothing like a 3200pound mid-engine Cayman. And yet, the Accord comes off as Porsche-like in its excellence. Similar to the Porsche, the Honda is the product of an all-encompassing vision. The major controls work in symphonic harmony, and the character of the machine is palpable in your every interaction with it.

For a family sedan, the Accord is far more gratifying than it needs to be. It brakes with a progressive pedal, steers with verve, and motors away from a stoplight with authority. Pitch and roll are tightly controlled by a taut suspension, but the dampers deftly round off the sharp hits. "The chassis and steering are absurdly good for a car in this category," noted staff editor Annie White.

Honda's CVT is smoother than George Clooney; the faux shifts never feel clumsy. Notch the shifter into Sport mode and the transmission response follows your right foot obediently. The Accord's 192-hp turbocharged 1.5-liter walked away from the other sedans when it hit 60 mph in a legitimately quick 6.6 seconds. Yet the Honda's appeal has little to do with the numbers. It netted 30 mpg in our drive, landed mid-pack in the skidpad and slalom, and posted a lastplace 176-foot stop from 70 mph without shading our opinion of its aptitude—well, that braking number could be better. All this with the CVT. (Remember, there's an even more engaging manual-transmission model.)

It's a sensible thing, too. The Accord offers comfort on par with the Camry and outward visibility to rival the Legacy.

Honda Accord Plus Finely tuned control calibrations and responses, unnecessarily quick, a rational purchase. Minus Sloppy active lane-keeping assist, there are quieter competitors. Equals A wholesome family sedan that knows how to cut loose.









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There's plenty of storage for objects small and large, with smartly designed in-cabin cubbies and the largest trunk in the test. And while every sedan here offers generous legroom, the Accord is the complete package, with more elbowroom and overhead clearance than the others can boast.

Our criticisms are few and trivial. The lane-keeping system is lousy, losing the scent in the gentlest highway curves. VanderWerp, reaching as deep as the Atlantic,

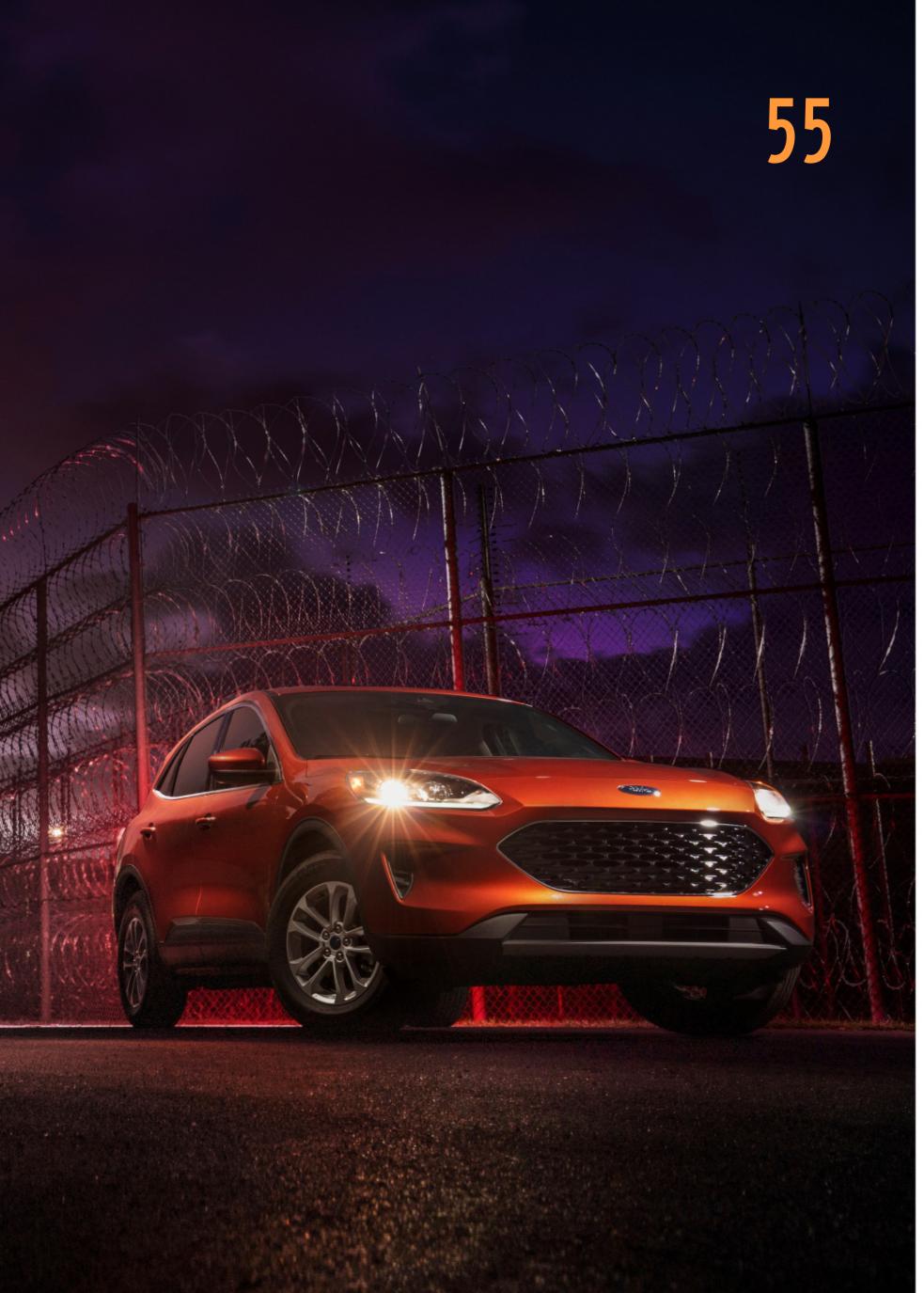
pointed out that the Toyota's shift lever is better damped than the Honda's.

If you want to drive a family sedan to work and back with the full suite of driving assistants active, you might want a softer and quieter car than this. But recalibrating the Accord to accommodate those desires would dilute the Honda's charm. The Accord is always ready to drop its family obligations and unwind a coiled road as though it's the only thing that matters. And that matters to us.

| The Official Fuel of CAR AND DRIVER  FINAL SESULTS | DRIVER COMFORT | ERGONOMICS | REAR-SEAT COMFORT | REAR-SEAT SPACE* | TRUNK SPACE* | FEATURES/AMENITIES* | FIT AND FINISH* | INTERIOR STYLING | EXTERIOR STYLING | REBATES/EXTRAS* | AS-TESTED PRICE* | SUBTOTAL | Powertrain | 1/4-MILE ACCELERATION* | FLEXIBILITY* | FUEL ECONOMY* | ENGINE NVH | TRANSMISSION | SUBTOTAL  | Chassis | PERFORMANCE* | STEERING FEEL | BRAKE FEEL | HANDLING | RIDE | SUBTOTAL  | Experience | FUN TO DRIVE | TOTAL |
|--|----------------|------------|-------------------|------------------|--------------|---------------------|-----------------|------------------|------------------|-----------------|------------------|----------|------------|------------------------|--------------|---------------|------------|--------------|-----------|---------|--------------|---------------|------------|----------|------|-----------|------------|--------------|-------|
| Maximum points available                           | 10             | 10         | 5                 | 5                | 5            | 10                  | 10              | 10               | 10               | 5               | 20               | 100      |            | 20                     | 5            | 10            | 10         | 10           | 55        |         | 20           | 10            | 10         | 10       | 10   | 60        |            | 25           | 240   |
| 1. Honda Accord                                    | 8              | 8          | 5                 | 5                | 5            | 7                   | 9               | 9                | 8                | 0               | 16               | 80       |            | 20                     | 4            | 9             | 9          | 8            | <b>50</b> |         | 18           | 9             | 9          | 9        | 8    | <b>53</b> |            | 21           | 204   |
| 2. Hyundai Sonata                                  | 7              | 8          | 4                 | 3                | 5            | 10                  | 9               | 10               | 9                | 0               | 15               | 80       |            | 18                     | 4            | 10            | 8          | 8            | 48        |         | 19           | 7             | 7          | 7        | 8    | 48        |            | 18           | 194   |
| 3. Toyota Camry                                    | 8              | 7          | 4                 | 4                | 4            | 6                   | 6               | 6                | 6                | 1               | 20               | 72       |            | 17                     | 4            | 10            | 7          | 9            | 47        |         | 16           | 8             | 8          | 8        | 9    | 49        |            | 17           | 185   |
| 4. Nissan Altima                                   | 7              | 8          | 3                 | 3                | 4            | 7                   | 7               | 7                | 8                | 1               | 17               | 72       |            | 17                     | 3            | 10            | 8          | 7            | 45        |         | 19           | 7             | 8          | 8        | 7    | 49        |            | 18           | 184   |
| 5. Subaru Legacy                                   | 7              | 7          | 3                 | 5                | 4            | 9                   | 7               | 7                | 6                | 0               | 17               | 72       |            | 15                     | 4            | 7             | 6          | 6            | 38        |         | 17           | 6             | 7          | 5        | 7    | 42        |            | 11           | 163   |

ORANGE IS THE NEW CAR FORD'S NEW ESCAPE MIGHT OFFER FREEDO FROM A CAR BUT AT WHA PRICE?

By Annie White



# ~ WE'RE ALL FAMILIAR WITH THE CONCEPT:

Your favorite restaurant revamps the menu, removing everything delicious and replacing it all with more expensive, less satisfying fare. "Come on in. You'll love our new menu!" Turns out this model isn't exclusive to eateries. It's also something automakers have glommed onto in recent months, most notably Ford. The company has largely gutted its U.S. lineup of affordable and enjoyable sedans and hatchbacks and packed it with crossovers. New look, same great taste!

If only. Ford's Fiesta and Focus, which are still sold in other parts of the world, are fun to drive, practical, and affordable [see "ReFocused," page 90]. But without them in the U.S. fleet, Ford is hoping that first-time buyers will instead step into an EcoSport or Escape.

Part of the soaring popularity of these carbased crossovers is that they're not entry-level vehicles. They have the high seating position and rugged essence that people are willing to pay for. Oftentimes, these crossovers offer more features and greater refinement than the sedans and hatchbacks from which they are spawned. When Ford removed the bottom rung of its product ladder, it turned the Escape, its second-bestselling vehicle behind the F-150, into one the cheapest products in its portfolio—and we're not talking about price.

Our test car's interior has a modern design and a high-mounted infotainment touchscreen, but hard, shiny, and chintzy-looking plastics are everywhere. The cloth seats are attractive, featuring a diamond pattern on the inserts that's echoed on the Escape's door panels. There were some standout build-quality issues with our preproduction Escape: We could see a gap between the door trim and the fabric headliner, parts of the center console had sharp edges left over from the molding process, and one of the front speakers simply didn't work. The infotainment system, while attractive and intuitive, didn't always respond promptly. We can only hope that production versions will be screwed together with more care.

The interior is attractive and spacious, and it boasts an expansive view out, but the materials show clear signs of cost cutting.

In the Escape hierarchy, our SE is one step up from the base trim, S. A turbocharged 1.5-liter inline-three making 181 horsepower and 190 pound-feet of torque is standard. SE Sport and Titanium models come with a hybridized 2.5-liter inline-four good for 200 horsepower, while the top-spec 250-hp turbo 2.0-liter is available on all-wheel-drive SEL and Titanium versions.

It's the smallest engine in the lineup, but the 1.5 is plenty potent. The turbo three moves this 3494-pound ute to 60 mph in 7.7 seconds, putting it near the top of its class. That time makes the Ford quicker than base-engine versions of the Hyundai Tucson, Mazda CX-5, Nissan Rogue, Subaru Forester, Toyota RAV4, and Volkswagen Tiguan. A Honda CR-V with a turbocharged 1.5-liter four is quicker, but not by much. But no CR-V can come close to an Escape packing the turbocharged 2.0-liter four; it hits 60 mph in only 5.7 seconds.

The 1.5-liter pairs well with the eightspeed automatic. We caught the transmission hunting between second, third, and fourth gears while creeping through a traffic jam. Despite being tuned to stay in high gears as much as possible to boost fuel economy, there's sufficient torque and power here to give the Escape a leg up on around-town traffic. The power figures and low-effort acceleration are pretty impressive for a 1.5-liter three-pot. At high speeds, though, like when flooring it onto a freeway, the engine feels a few horses short of satisfying. And the 75 decibels measured at full throttle might not be high, but the quality of the sound isn't pleasing. We also uncovered a bad vibration below 1250 rpm, and when Ford's cylinder-deactivation



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technology took the engine from three cylinders to two, a low boom reverberated through the cabin and could be felt in the floorpan.

The chassis tuning is dialed in to the right side of sporty, and the ride remained civil, even when our daily errands took us over washboard roads. The steering is direct, with good feel, firm weight, and no dead spots. And Ford has made standard in every Escape a suite of active safety technology, including automated emergency braking, blind-spot monitoring, and lane-keeping assistance. More safety features—such as adaptive cruise control, steering aid for evasive maneuvers, and automated parking capability—can be added, as Ford did with this car.

The cabin is spacious and airy thanks to the large windows. In back, there's an impressively roomy rear seat that can slide forward and back on a roughly six-inch track. The cargo hold is decent, too, with 34 cubic feet of space, and even this base powertrain is rated to tow up to 2000 pounds.

The all-wheel-drive system comes with several available modes, including one for sand—an uncommon setting in a car designed more for commuting than exploring. The Escape is handsome in a

## **Counterpoints**



Are we now at the point in the automotive world where features such as lane-keeping assist and adaptive cruise control are included before a simple luxury like a

leather-wrapped steering wheel? Have priorities shifted that much? Granted, I haven't driven a low-spec model in quite a while and it's possible that I've remained blissfully unaware of this development, but this naked, plastic steering wheel makes the Escape's otherwise stylish interior just seem unfinished. —*Drew Dorian* 



Basic and cheap can be charming. But at more than \$30K, this Escape isn't very cheap and it's certainly not charming.
Aside from the massive rear seat, there's

not much here that makes this feel like a smart buy. But, if you're committed to the Escape route and are willing to fork over another \$2285, you can get the vastly more powerful and refined 250-hp 2.0-liter turbo four. It transforms the Escape from a buzzy meh-mobile to a compellingly quick sport-ute. —*Tony Quiroga* 



Despite its small three-cylinder, the Escape is quicker than most competitors, perfect for anyone looking to establish dominance. worn-in-bar-of-soap way. But its smooth edges and wide stance cut a less aggressive, less modern figure than the last gen's angular and chiseled body.

As is the case with many vehicles that visit our office, the Escape arrived without a price on its window sticker. Without

that to go by, we assumed, based on the finish and content, that our test vehicle would ring in around \$25,000. When we learned that this model—with its \$1500 all-wheel drive and its adaptive cruise control and touchscreen navigation system (part of a \$695 package)—cost \$30,485, our acceptance turned into incredulity.

Given the inevitable lease deals and incentives, we hope no one will pay the MSRP for this or any other Escape. But we have to judge it on its as-tested price, and the Escape fights in a tough class filled with more refined and less expensive vehicles. The luxury-adjacent Mazda CX-5 can

be had in its mid-tier Touring trim with all-wheel drive, leatherette seating, rain-sensing windshield wipers, and an engine with an even number of cylinders for less than \$30,000. The Honda CR-V EX offers more power and a much better interior and costs less when comparably equipped. Toyota's RAV4 can be had in several trim levels (including with a hybrid powertrain) for less than our Escape SE, and adaptive cruise control comes standard.

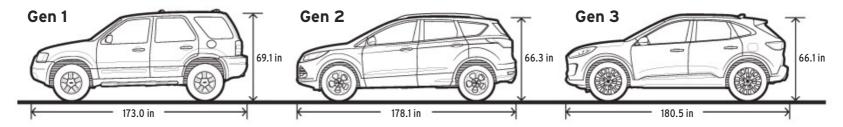
Price is important at this end of the market, and \$30,000 isn't a trivial sum. With nothing down and a five-year loan at 4 percent, this Escape would cost its owner almost \$530 a month. Add insurance and the monthly bill will likely edge out of reach for households pulling in the median family income, which, in 2018, was \$63,179. Stretching to own one seems like a big ask, and the folks who can afford it may be turned off by the obvious corner cutting.

The redesigned Escape makes it clear that rather than disappearing, Ford's budget-friendly

compact cars have been transmuted into budget-unfriendly compact crossovers. One of the chief benefits of crossovers to car companies is that they tend to have higher profit margins than cars do. It makes sense that Ford would want to continue to capitalize on this by charging more for the Escape than any reasonable person would pay. That doesn't mean we should all play along.

Plus: Solid driving dynamics, spacious cabin, attractive design. Minus: Uncommonly cheap interior, grumbly three-cylinder, too expensive. Equals: Ford's car replacement turns out to be a small SUV with moves but also a hefty price and a lack of refinement.





## 2020 FORD ESCAPE SE AWD

5-passenger, 4-door hatchback
Options: Ford Co-Pilot360 Assist, \$695
Audio System: satellite radio, USB and
Bluetooth-audio inputs, Android Auto and
Apple CarPlay interfaces, 6 speakers

### **Engine**

turbocharged and intercooled inline-3, aluminum block and head

Fuel Delivery: port and direct injection Turbocharger: Continental SK1

**Valve Gear:** double overhead cams, 4 valves per cylinder, variable intake- and exhaust-valve timing

 Redline/Fuel Cutoff
 6500/6400 rpm

 Power
 181 hp @ 6000 rpm

 Torque
 190 lb-ft @ 3000 rpm

### Drivetrain

| GEAR     | RATIO | MPH PER<br>1000 RPM | MAX SPEED<br>IN GEAR (rpm) |
|----------|-------|---------------------|----------------------------|
| 0        | 4.69  | . 4.7               | 30 mph (6400)              |
| <b>2</b> | 3.31  | 6.6                 | 42 mph (6400)              |
| 3        | 3.01  | . 7.3               | 47 mph (6400)              |
| 4        | 1.92  | . 11.4              | 73 mph (6400)              |
| 6        | 1.45  | . 15.1              | 97 mph (6400)              |
| 6        | 1.00  | . 21.9              | 122 mph (6400)             |
| •        | 0.75  | . 29.3              | ,                          |
| 8        | 0.62  | . 35.4              |                            |

## **Chassis**

unit construction with 2 rubber-isolated subframes

Body Material: steel and aluminum stampings

## Steering

rack-and-pinion with variable electric power assist

## **Suspension**

**F:** ind, strut located by a control arm, coil springs, anti-roll bar **R:** ind; 1 trailing arm, 2 lateral links, and a toe-control link per side; coil springs; anti-roll bar

### **Brakes**

**F:** 13.0- x 1.1-in vented disc, 1-piston sliding caliper **R:** 11.9- x 0.4-in disc, 1-piston sliding caliper

Stability Control: traction off

### Wheels and Tires

### **Exterior Dimensions**

| Wheelbase        | 106.7 in |
|------------------|----------|
| Length           | 180.5 in |
| Width            |          |
| Height           |          |
| Front Track      | 62.4 in  |
| Rear Track       | 61.8 in  |
| Ground Clearance | 7.3 in   |

## **Interior Dimensions**

Passenger Volume .......... F: 54 cu ft R: 49 cu ft Cargo Volume Behind .... F: 65 cu ft R: 34 cu ft

## COMPETITORS

Ford's little engine is a bit rough, but it's easy on gas and makes for a relatively quick Escape.

## Ford Escape AWD

181-hp 1.5-L I-3, 8-sp auto

8-sp auto

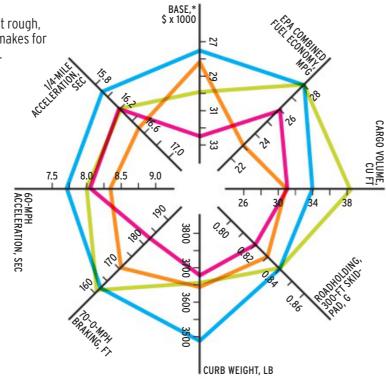
Hyundai Tucson AWD 181-hp 2.4-L I-4,

181-np 2.4-L 1-4, 6-sp auto

Mazda CX-5 AWD 187-hp 2.5-L I-4,

6-sp auto
Toyota RAV4 AWD
203-hp 2.5-L I-4,

\*includes performanceenhancing options



## **Acceleration** 23.5 100 15.9 @ 87 7.7 SEC Rollout, 1 ft .. .... 0.3 sec **Rolling Start, 5-60 mph** ...... 8.3 sec Top Gear, 30-50 mph ..... Top Gear, 50-70 mph ... Top Speed ...... 122 mph (gov ltd) Weight Curb . 3494 lb Per Horsepower ..... **Distribution** ..... **F:** 58.0% **R:** 42.0% Towing Capacity ..... Roadholding, 300-ft Skidpad 0.84 **Understeer: moderate Braking** 70-0 mph ■ 162 ft Fade Rating: none **Interior Sound Level** Full Throttle ... 70-mph Cruising ..... Fuel Capacity ..... . 15.7 gal 91 (recommended) 35 35 — 31 28 26 26 C/D 75-mph Highway Driving **EPA Highway** C/D Observed \*stability control inhibited

**TEST RESULTS** 





By Brett Berk

Auto shows
evolve to
remain
relevant.

Illustration by Tavis Coburn

## The Show Must Go On

With drinks flowing and music blaring, Arnold Schwarzenegger appeared at the press unveiling of the new Mercedes-Benz G-class in Detroit in January 2018. Miked and amped up, surrounded by a dense crush of expectant journalists, and tailed by fawning Benz CEO Dieter Zetsche, Schwarzenegger was in full Terminator mode, cracking flat-affect asides, drawing in and revving up the crowd, and downing shots of schnapps onstage with the Mercedes exec. The gathered writers delighted in the celebrity and spectacle, connecting the rugged Austria-built truck with the rugged Austria-built bodybuilder/actor/governor. It was a memorable event in a sea of press unveilings, and the coverage was commensurate.

But though the press was gathered in Detroit for the flagship North American International Auto Show (NAIAS), this event didn't take place in Cobo Center downtown, where NAIAS—the tentpole for the annual cavalcade of car conventions—has been held each January for decades. Concerns about expense, return on investment, and the ability to stand out in a sea of unveilings caused the German automaker to

move this reveal off-site to a Mercedes-controlled, Mercedes-branded environment in an old theater elsewhere in the city.

This sideline event was a sign of things to come. This past January, Mercedes-Benz skipped NAIAS altogether along with other major European brands, including Audi, BMW, Jaguar Land Rover, Porsche, and Volvo. Headlines announced the death of the Detroit auto show. Yet these issues aren't limited to NAIAS.

Attendance by manufacturers is down at other shows large and small, including international venues like Paris and Frankfurt. FCA, Ferrari, Nissan, Peugeot, and Toyota are just some of the major carmakers that sat out the Frankfurt show (IAA) this year. Attendance fell to 560,000 visitors, down from the 2017 and 2015 shows, which drew in 810,000 and 931,700 people, respectively. During the press days at Frankfurt, former Opel CEO Karl-Thomas Neumann tweeted: "It is obvious so let's say it explicitly: The #IAA2019 is a huge fail. It's just a sad shadow of what it used to be. There will not be an #IAA2021. End of story."

## **CHANGING TIMES**

So what is causing this shift? Some of it is simply due to changes in automakers' development and production schedules. "It used to be that we would shoehorn everything in," says Terry Rhadigan, a General Motors veteran and the automaker's executive director of communications. "We'd start with a calendar of the auto shows and we'd start plotting which vehicle was going into which show. It's much more of a rolling cycle now."

Rhadigan also cites the pie-slicing metastasization of manufacturers' vehicle offerings—what he calls "proliferation of models"—as driving this need to present cars outside the proscribed and limited auto-show schedule. But there are other issues. "We have long felt that you can be more creative when you're not necessarily inside an auto show," he says. "And you might be able to reallocate your money in different touchpoints that make it more of a brand experience."

This mantra of experientialism is key. Consumers already have access to infinite information on their smartphones and are looking for something more engaging when they leave their homes; witness the rise of "experiential retail," such as IKEA's warehouse sleepover party or Nike's in-store basketball court. When automakers create their own off-site event for displaying their vehicles, they control the entire visitor experience in a way they just can't inside a cavernous convention center.

All of this has led brands to reconsider their once automatic commitment to the auto-show model. "As a growing luxury company, we'll definitely continue to showcase models at global auto shows," says Stuart Schorr, vice president of communications for Jaguar

Land Rover North America. "What has changed, though, is that we'll evaluate on an annual basis our presence at every auto show in the context of our new-model launch plans, local market dynamics, and other options. Like every other promotional arena, from network TV to art fairs, auto shows have more competition than ever before."

## RELEVANCE

This is not to suggest that auto shows are no longer important to consumers. Though overall attendance is down, the major shows still draw big crowds. The biennial Paris show, for example, saw more than 1 million visitors in 2016 and 2018. (Disclaimer: "I would strongly advise you to take the attendance reported by some other shows with a grain of salt," says Mark Bilek, senior director of communications and technology for the Chicago Automobile Trade Association.) And according to Foresight Research, two-thirds of all auto-show attendees in 2018 were in the market to buy a new vehicle in the coming year. Given that a car is among the largest purchases most people will ever make, and that there's no other place where they can see, touch, and get inside such a breadth of models, the appeal of car shows remains notable. But consumer needs are shifting. "The question isn't, Can these auto shows still be relevant?" says Alexander Edwards, president of automotive research and consulting firm Strategic Vision. "I think a better way to think about them is, How can they evolve so that they are as relevant as the consumer needs them to be?"

This kind of relevance, according to Edwards, requires something more compelling, something to activate consumers' passion. Something that demonstrates their affection. "They want something that really says, 'Hey, we're going to give you an experience that reminds you why you love your vehicle so much—why you name it, why you consider it an extension of your personality, a symbol of who you are."

Edwards's firm conducts an annual in-depth psychographic survey of hundreds of thousands of new-car buyers, attempting to uncover the emotional motivations underlying their purchase decisions. And his conclusion is that the

"The world has changed.
Technology has changed.
Cars have changed. Detroit
has changed. What mobility
represents has changed.
And we needed to get out
in front, to say that we want
to be way more relevant."

-DOUG NORTH, NAIAS CHAIR

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auto shows need to move far beyond the realm of static displays in a giant convention center to regain relevance. Surprisingly, in order to accomplish this, he feels that the industry needs to reach at once forward and backward in time.

Edwards first mentions the allure of interactive and contemporary gatherings like Comic-Con, South by Southwest, and CES. He cites these as examples of "popculture events where people can be a part of an integrated, innovative, fun experience." Furthermore, he states that these experiences do more than engage. "They really help early adopters and advocates get on board with what's there and turn around and sell that to others."

But then he shifts gears, into reverse, and considers the immersive automotive conclaves of yesteryear, such as the General Motors Motorama—a mid-20th-century traveling spectacle, like a mini mobile World's Fair, that visited American cities and showcased the OEM's current, future, and fantastical plans. Edwards believes: "It really could become presentation again. Pageantry. There was as much Hollywood in those events as there is at CES today. If the auto shows want to say, 'Look, we know some of you love brand A, brand C, brand X, and we're going to have a theatrical event where you can come in and do things that you wouldn't be able to do elsewhere,' and it's talked about, presented in that sort of way, they would immediately be relevant again."

## **FUTURE PLANS**

Though it's taken time, the auto shows' organizers finally seem to be adapting to

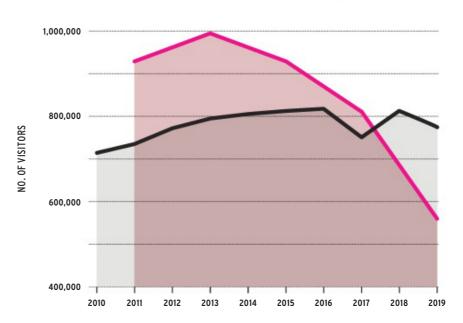
these needs. Last summer, NAIAS announced that 2019 would be the final iteration of the old Detroit auto show. Version 2.0 will move from January to June, beginning in 2020, with a new configuration. "The world has changed," says Doug North, the chair of NAIAS. "Technology has changed. Cars have changed. Detroit has changed. What mobility represents has changed. And we needed to get out in front, to say that we want to be way more relevant to all the constituency groups—manufacturers, consumers, communities, and cities."

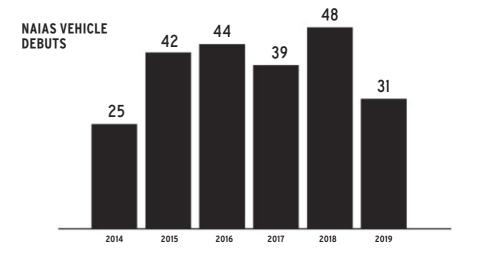
To this end, the new Detroit show will feature a different format. The downtown convention center will still be the hub for dozens of staid manufacturer and technology stands. But there will also be a bevy of experiential opportunities. These will include outdoor venues along the riverfront for displays of and interaction with vehicles; closed-down roadways for test drives; on-street demonstrations of new and emergent driver-assistance technologies; entertainment tents for intermittent performances, TED Talk-style monologues, and panel discussions; motorsports demos; and, of course, the now de rigueur food trucks. There will even be

## **Not-So-Crowded House**

The health of an auto show is primarily judged by public attendance and new-vehicle debuts.

AUTO SHOW PUBLIC ATTENDANCE ODETROIT (NAIAS) OFRANKFURT (IAA)





a series of barges moored in the Detroit River to be used for display, entertainment, and dining purposes.

The organizers also hope that the show will spill out into the city environs, especially some of the newly reinvigorated, gentrified pockets right around downtown. This is something that should be far easier to realize during the long warm days surrounding the summer solstice than during the numbing and short days in darkest winter.

If this strategy is successful, it may have huge repercussions for shifting the format and execution of other auto shows. "There's an awful lot of conversation that all eyes are going to be on Detroit," North says of the scrutiny from other auto-show executives. "So to the degree that it impacts other shows, I hope it will."

Of course, in an industry guilty of repeating failed practices, not everyone is banking on this change succeeding. "One of my close friends, when he learned what we were doing, said, 'Doug, you're either going to be famous or you're going to be infamous,'" recounts North. "'You can only be one of the two.'"

# AFTER TRACKING EVERY FILL-UP, SERVICE, PROBLEM, COMPLAINT, DENT, AND DOG HAIR, CAR AND DRIVER PRESENTS THE 40,000-MILE EVALUATION.

**- 2018 -**

## KIA STINGER GT

THE LITTLE THINGS. BY JOSH JACQUOT

With the Kia Stinger, it's the little things that irk you. The subtle hum of its turbos winding down after you kill the engine. The recurring rattle in the hatch. The ever pulsing brake pedal—likely a result of editors stopping from extralegal speeds. Now, to be clear, the turbo noise is normal. Our Stinger made it from day one, and we came to appreciate the inertia those turbines must have to spin for so long after exhaust gases stop driving them. But the hatch rattle and the vibration in the brake pedal bothered us throughout the Kia's 40,000-mile test.

These annoyances weren't deal breakers, though. We consider them to be grow-

ing pains in Kia's journey to maturity rather than significant quality issues. When the problems appeared, the Stinger's five-year/60,000-mile bumper-to-bumper warranty covered the fixes.

The long-standing promise made by the Korean brand is that you get a lot for your money. It's a promise our all-wheel-drive Stinger GT fulfilled by arriving with a \$48,400 price, including the \$2000 Advanced Driver Assistance System package that brings forward-collision warning and avoidance, adaptive cruise control, lane-keeping assist, and blind-spot monitoring.

Also backing up the car's value statement is Kia's 100,000-mile powertrain

ARRIVAL

**MARCH 2018** 

**DEPARTURE** 

AUGUST 2019

# "HARD TO THINK OF ANOTHER AFFORDABLE, USEFUL, AND GENERALLY RESPECTABLE CAR THAT BEHAVES THIS WAY."

-ANNIE WHITE, STAFF EDITOR



Kia's first entry in the sports-sedan segment might not be perfect, but we found much to love in its power, value, and design.



warranty, which the brand has offered since 2000. It's a put-your-money-where-your-mouth-is sort of promise designed to boost buyer confidence. In combination with the Stinger's sticker and high feature count, this warranty helps you sleep a little better at night, confident that those turbochargers will keep spinning for a long time.

We took some lengthy trips in the Stinger during its 17-month stay, but it never went too far from the Midwest. It wasn't the kind of car that lit our collective fire for hard driving, but its size, comfort, and power made it an excellent high-speed people hauler, a Korean cruise missile, a working man's Porsche Panamera. Like a Panamera, it's a blend of stylish, sporty, and practical, except here it comes with a friendlier price.

Due to our ordering mistake, the Stinger arrived wearing optional 225/45R-18 Bridge-stone all-seasons instead of the standard 19-inch Michelin Pilot Sport 4 summer tires. Kia supplied us with a set of the summers, which we installed as the Stinger showed 10,073 miles on the odometer.

If playing Porsche is what you want from your Kia, the Stinger delivers. Its twin-tur-bocharged 3.3-liter V-6 is good for 365 horsepower, and the eight-speed automatic churns seamlessly through the gears. After respecting the 600-mile break-in period, we took the Stinger to the track and strapped on the test equipment. It hit 60 mph in 4.6

## Rants and Raves

People pull up and ask about the Stinger: "That's a Kia? What Kia?" -CAROLYN PAVIA-RAUCHMAN

This chassis needs more starch.

-MIKE SUTTON

Put this [engine] in a BMW product and I'd never suspect it wasn't from Bavaria.

-ERIC STAFFORD

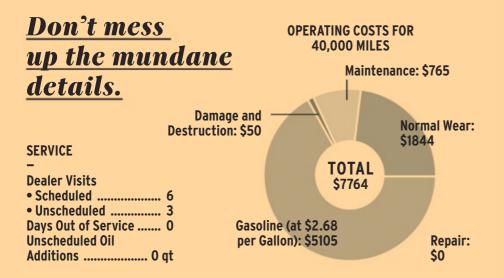
Some cars hide their age well.
This Kia does not.
-ALEXANDER STOKLOSA

Rotors warped. Again. Hatch rattling. Again. -JOSH JACQUOT seconds, stopped from 70 mph in 179 feet, and held on to the skidpad at 0.85 g on the all-seasons. The summer-rubber test four months later bumped lateral acceleration to 0.89 g and chopped the stopping distance to 170 feet.

As time with the Stinger passed, we came to appreciate the ease with which it slides through freeway traffic. The V-6's thrust couples brilliantly with the four-door's all-wheel-drive system to produce confident on-throttle stability regardless of road surface. Lay heavily into the accelerator entering any of Michigan's two-lanes—a move that almost always starts with a 90-degree turn—and the Stinger confidently squats and goes where it's pointed with zero drama. It'll even do it on mud, snow, slush, and gravel shaped like ball bearings.



december 2019 ~ Car and driver



## LIFE EXPECTANCIES

Tires

• Front ...... 30,000 miles • Rear ...... 14,500 miles

Brake Pads

• Front ...... 60,000 miles • Rear ...... 75,000 miles

## WHAT BITS AND PIECES COST

Headlamp .......\$1599
Oil Filter ......\$14
Tire (19-inch Summer)
• Front .....\$282
• Rear ....\$275
Wiper Blade .....\$26
Front Brake Pads ....\$242

## **FIVE-YEAR DEPRECIATION\***

\*depreciation data from ALG, based on 15,000 miles per year



## **SERVICE TIMELINE**

-

March 12, 2018 79 miles Long-term test begins.

May 17, 2018
5601 miles
6000-mile service:
Dealer replaces cabin air filter, changes oil, rotates tires, and performs various inspections. \$124

July 11, 2018 10,073 miles We install 19-inch wheels and Michelin summer tires. \$3399

August 10, 2018
12,498 miles
12,000-mile service:
Dealer rotates tires and performs oil change and inspections. \$58

November 2, 2018 17,857 miles We install 19-inch Pirelli winter tires. \$1099

November 6, 2018 18,679 miles 18,000-mile service: Dealer rotates tires, changes oil, and updates ECU with new transmission tune. \$58

February 5, 2019
23,781 miles
24,000-mile service:
Dealer changes oil,
replaces cabin and
engine air filters,
rotates tires, and
orders parts for
recalled wiring
harness. \$203

February 15, 2019
24,230 miles
Dealer machines brake
rotors, adjusts hatch
striker, and replaces
rear suspension acceleration sensor. \$0

March 11, 2019
25,721 miles
Dealer replaces front wiring harness, readjusts hatch striker, and inspects vehicle. \$0

April 16, 2019
28,740 miles
Dealer replaces brake rotors and readjusts hatch striker. \$0

May 1, 2019
30,357 miles
30,000-mile service:
Dealer changes oil,
replaces cabin and
engine air filters,
rotates tires, and
inspects car. \$197

May 16, 2019 31,473 miles Summer tires reinstalled.

June 7, 2019
33,612 miles
Local glass shop repairs
windshield chip. \$50

July 11, 2019
35,569 miles
36,000-mile service:
Dealer rotates tires and changes oil and cabin air filter. \$125

August 1, 2019 38,203 miles We replace worn rear summer tires. \$610

August 12, 2019 40,990 miles Long-term test ends. We made it all the way to 24,000 miles before the Stinger's first unscheduled dealer visit. It was then that the warped rotors culminated in a vibration in the brake pedal. Accompanying the pulsing pedal was a rattle from the hatch area and an instrument-cluster warning telling us to "check electronic suspension." So we did. Or rather our local dealer did. The technician replaced a rear suspension accelerometer, machined (though did not replace) the brake rotors, and adjusted the striker on the hatch, all under warranty.

Meanwhile, some editors were falling for the Stinger's moves. "It executes its mission to a T," said senior editor Joey Capparella. "A quick, refined, elegant, and stylish grand tourer that cruises effortlessly at high speeds while offering tons of space for both people and cargo." Senior editor Mike Sutton was less convinced: "The Stinger is simply short on engaging chassis dynamics. It's best considered as just a nice all-around sedan with a strong engine, but not a sports sedan."

Driving with real purpose on winding mountain roads isn't the Stinger's forte. It is, in its best moments, a long-legged grand tourer that willingly swallows high-speed miles with tremendous ease and aptitude. We found ourselves appreciating its easy speed. It's rapid without feeling labored. Though its steering is largely inert, it'll match your enthusiasm in the corners provided you taper off at "take it easy, honey." And it'll do it with a couple of big suitcases stuffed under its hatch. We liked it despite the fact that it's lacking the hard-edged driving character you'd get in, say, an Alfa Romeo Giulia Quadrifoglio.

At 25,721 miles, after waiting for several weeks for parts to arrive, the Stinger went to the dealership to have a section of its wiring harness replaced to address a recall. At the same time, the dealer took a second shot at fixing the hatch rattle with limited success. We kept driving, and just before the odometer rolled over 29,000 miles, the Stinger was back at the dealership for a still-vibrating brake pedal and a third hatch adjustment. This time the dealer replaced the rotors under warranty.

During the Kia's stay, we became increasingly aware of its sensitive stability control, which can't be fully disabled. Combine even the slightest unevenness in the road surface with aggressive throttle use and the Stinger's stability-control warning lamp flashes like Clark Griswold's house on Christmas Eve. The resultant power reduction stops



## Rants and Raves

Shows well over rough roads with firm but not-harsh magic.

I love this car.
-JOEY CAPPARELLA

At 16,000 miles, I can hear the doors flexing against their seals at parking-lot speeds.

-DAVE VANDERWERP

I love the big sporty Kia's versatility. -RUSTY BLACKWELL

Fun in the snow, even with traction and stability control on guard.

-ANNIE WHITE

Nearing the end of the test, the Stinger needs some TLC. -JOEY CAPPARELLA

After 40,000 miles, the Stinger's leather seats appear to have been touched by 80,000 miles' worth of asses.

forward progress for way too long. The message is, Don't push me too hard, which isn't something C/D staffers like to hear.

Like nearly all our long-termers, the Stinger endured the five months of winter we see here in our state. To get through the freeze/thaw and slushy hell that is Mordor, er, Michigan in the winter, we outfitted the Kia with Pirelli Winter Sottozero 3 tires. Speaking of tires, at 38,203 miles (23,689 of which were on winter or all-season rubber), the Stinger's rears were down to their wear bars. We'll do the math for you. It tore through its rear summer tires in only 14,500 miles. Replacing those set us back \$600, and the fronts still had about 15,500 miles of life left in them.

Other costs were more reasonable. Six regular service stops at 6000-mile intervals for oil and filters made up the bulk of our spending on the Stinger and ranged in cost from \$58 to \$203. We also spent \$50 to fill a windshield chip left by the spew of a gravel truck.

At the end of the Stinger's 40,000-mile run, acceleration remained basically the same—both tests produced 13.1-second quarter-mile passes—proving that the car's performance didn't diminish with age. But the worn front and new rear tires altered the handling balance enough to improve lateral acceleration to 0.94 g.

The Stinger averaged 21 mpg while it was in our care, equaling the EPA's combined estimate. It did see road-trip fuel economy in the high 20s to low 30s, boosting its potential range to more than 450 miles.

Nothing serious went wrong with our Stinger. It required no unscheduled oil. It spent minimal time at the dealership, and issues were handled quickly and under warranty. Its powertrain soldiered through its stay without complaint, easily propelling the car as quickly at the end of the loan as it had at the beginning.

As the Stinger's long-term test drew to a close, we found ourselves once again noticing little things that irk us. Its aging seat leather

## 2018 KIA STINGER GT AWD

**Vehicle Type:** front-engine, all-wheel-drive, 5-passenger, 4-door hatchback

**Dimensions** 

Warranty

10 years/100,000 miles powertrain warranty 5 years/60,000 miles bumper to bumper 5 years/100,000 miles corrosion protection 5 years/60,000 miles roadside assistance

**Model Year Changes** 

2019: Blind-spot monitoring and rear-cross-traffic detection became standard. Wireless phone charging, heated rear seats, and a surround-view monitor are now available. Rear-drive GTs come with a limited-slip diff, previously optional. The new Sun & Sound package for 2.0-liter models provides a sunroof, LED headlights, a Harman/Kardon audio system, and a larger touchscreen. A limited-production GTS trim, complete with an optional enthusiast-focused drift mode, joined the lineup late in the model year.

## TEST RESULTS

|                    | New*       | 40,000       |
|--------------------|------------|--------------|
|                    |            | miles        |
| Rollout, 1 ft      | 0.3 sec    | 0.3 sec      |
| 60 mph             |            |              |
| 100 mph            |            |              |
| 130 mph            |            |              |
| Rolling Start,     |            |              |
| 5-60 mph           | 5.2 sec    | 5.2 sec      |
| Top-Gear Passing,  |            |              |
| 30-50 mph          | 2.7 sec    | 2.7 sec      |
| Top-Gear Passing,  | 000        | 000          |
| 50-70 mph          | 3 3 sec    | 3 3 sec      |
| 1/4-Mile           |            |              |
| 1/ T MITC          | 107 mph    |              |
| Braking,           | 107 IIIpii | 100 IIIpii   |
| 70-0 mph           | 170 ft     | 165 ft       |
|                    | 117 11     | 103 11       |
| Roadholding,       | 0 0E a     | 0.04 a       |
| 300-ft Skidpad     |            |              |
| Top Speed          | 133 M      | pn (gov ita) |
| Fuel Economy       | 0.1        | 1/10/05      |
| • EPA Comb/City/Hv |            |              |
| • C/D Observed     |            | 21 mpg       |
|                    |            |              |

\*performed on all-seasons

took on a shiny patina that looked a lot like vinyl. Creaks in its structure and suspension appeared that weren't present at 20,000 miles. And that pesky hatch rattle returned. Light brake pressure from freeway speeds had the pedal vibrating again, a sure sign that the 11,000-mile-old rotors had warped. And the turbos still hummed a familiar song as they spooled down. Those are the Stinger's little annoyances and quirks. But over the course of the Kia's run with us, its performance, practicality, and value far outweighed the small stuff.

## Fleet Files HERE'S HOW OUR OTHER LONG-TERM VEHICLES ARE FARING IN THEIR 40,000-MILE TRIALS:



Honeymoon Phase

## 2020 KIA TELLURIDE

ARRIVAL: AUGUST 2019 MILES: 7126 OBSERVED MPG: 20

We were smitten with the Telluride at first glance. It has presence, an upscale visage, and a competitor-shaming interior. And our goodwill toward it was not blunted a bit after we drove it, tested it, and compared it. The only thing we haven't yet confirmed about the Telluride is its long-haul reliability. So we ordered one to run the gauntlet of our 40,000-mile long-term test. We specified a top-of-the-line SX model, which comes with a big load of options. Getting all-wheel drive,



which adds \$2000 to the cost of any Telluride, was a no-brainer. We also added the \$795 towing package as well as the \$2000 SX Prestige package, which includes a head-up display, heated and ventilated leather-trimmed second-row seats, and a few other niceties. All this pushed our SX, which starts at \$44,535, up to a not-unreasonable \$47,540. We're already singing its praises. And its initial performance numbers and real-world fuel economy are wholly class competitive. It's possible that this all goes terribly wrong, but for now, we remain smitten. –Daniel Pund



## 2019 GENESIS G70 DYNAMIC 2.0T ARRIVAL: JUNE 2019 MILES: 7012 OBSERVED MPG: 26

During our 2019 Genesis G70's 600-mile break-in period, logbook comments praised its poise on the road and its easy, accurate responses to steering inputs. We've been generally pleased with the G70's comfort, capabilities, and demeanor. When we could finally floor the G70 with the reckless abandon we're used to, we took it to the track, where the 252-hp turbo 2.0-liter and eight-speed automatic clipped off a 5.8-second run to 60 mph. That's notably behind the most recent tests of the automaticequipped Audi A4 and BMW 330i. Maybe we should have gone for the 365-hp twinturbo V-6. - Annie White



## 2019 SUBARU ASCENT TOURING ARRIVAL: NOVEMBER 2018 MILES: 27,016 OBSERVED MPG: 20

Four seasons and more than 27,000 miles have passed since the Ascent joined our long-term fleet. Over that time, we've enjoyed the SUV's practicality and we've acclimated to the springiness of its CVT; it's the driver-assist systems that continue to annoy us. If you neglect

to shut them off, you get seemingly endless beeps triggered by the lane-departure system, followed shortly by the intrusive lane-keeping assistance of Subaru's EyeSight safety suite. "It's like a helicopter parent," opined staff editor Eric Stafford. Fortunately, once you turn off the lane-minding system, it stays off even if you restart the car. —David Beard





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### RIGID, TRANSVERSE RIBS Provide stability for responsive steering

and sure-footed dry cornering









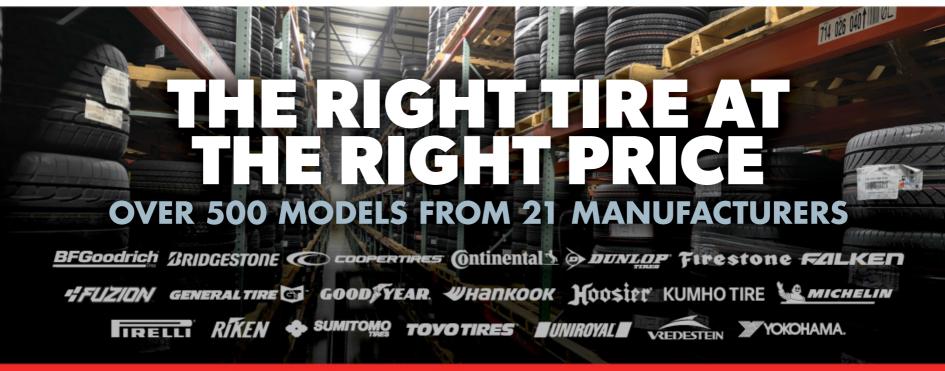


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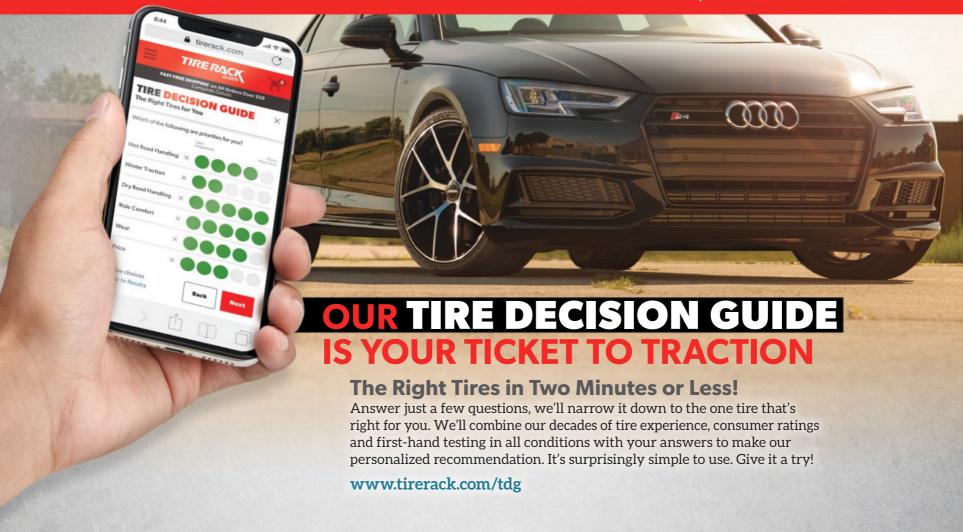
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# THE RUNDOWN

An expert look at the newest and most important vehicles this month.





2020 LINCOLN CORSAIR RESERVE 2.3L AWD ~ BY TONY QUIROGA

# A Small Play at Luxury

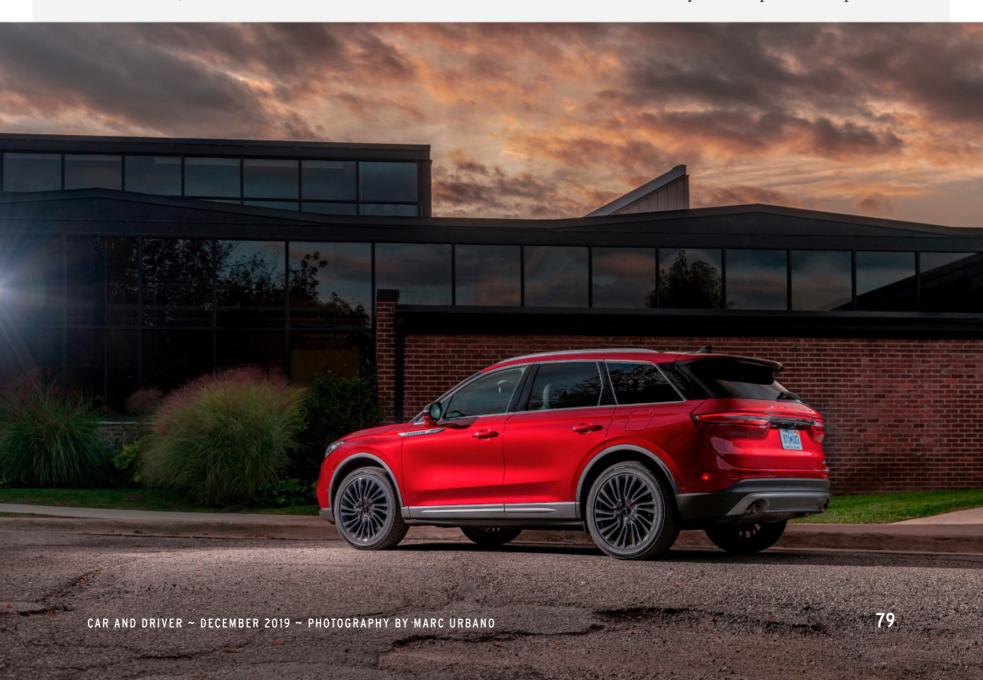
Highs: Supple seats and ride, punchy engine, laid back. Lows: Hood flutter, costs twice as much as a Ford Escape.

**Some luxury cars** are so thoroughly relaxing that they seem to melt away as you drive them. The Lincoln Corsair began its vanishing act at a steady 80 mph on an early morning drive to the office. A faint rush of wind around the windshield, the turbocharged 2.3-liter four peacefully ticking over in eighth gear, and the distant clop of the tires over pavement breaks. The optional 24-way leather seats, which took several minutes to dial in

the night before, coddling, supporting, and heating. And then, while approaching Zen, we noticed the hood flutter. Back to reality.

Once you've seen that, it's hard to unsee. We know that the Corsair isn't the only vehicle afflicted with a quivering hood, but when luxury is promised, a flapping hood is an in-your-face sign of cheapness, an annoying and glaring miss in an otherwise convincingly executed premium product.

Beneath all the leather and stitching, the Lincoln Corsair is, at its core, a Ford Escape. We tell you this not to disparage it, but to appreciate where Lincoln started and what it's done. There's nothing obvious shared between this SUV and the Ford that's featured on page 54. A deeper look at the structure and the chassis reveals commonality between the two, but the Corsair goes down the road with an isolated serenity that escapes the Escape.







The Lincoln's base engine is a 2.0-liter four-banger with 250 horsepower and 280 pound-feet of torque, an engine that's shared with a number of Ford products, including the Escape. Ford's familiar EcoBoost 2.3-liter is optional and makes 295 horsepower and 310 pound-feet in the Corsair. The larger powerplant moves the little Lincoln ably and squirts off effortless runs to 60 mph in 6.0 seconds. While that's quick enough to give a snoozing Volkswagen GTI a run for its money, what's more likely to impress the typical buyer is the easy way the Corsair glides along at part throttle on the 2.3's ample low-end torque.

You can push the Corsair hard, but demand too much and it will resist your antics. The steering is crisp and responsive, and the chassis feels willing, but the always-on stability control throws the anchor at the first sign of shenanigans. Switching to Excite mode—the most dynamic setting—alters the powertrain, steering, and suspension tuning. But it really doesn't appear to change much. So calm down, go back to Normal mode, leave things alone, enjoy those seats, and take in the well-outfitted cabin.



### THE NUMBERS

Vehicle Type: front-engine, all-wheel-drive, 5-passenger, 4-door hatchback
Base/As Tested ....... \$50,365/\$58,510

**Engine:** turbocharged and intercooled DOHC 16-valve 2.3-liter inline-4, 295 hp, 310 lb-ft

**Transmission:** 8-speed automatic **Dimensions** 

| • | Wheelbase   | 106.7 ir           | 1 |
|---|-------------|--------------------|---|
| • | L/W/H       | 180.6/74.3/64.1 ir | า |
| • | Curb Weight | 4058 lb            | ) |

| TEST RESULTS                               |
|--|
| <b>Rollout, 1 ft</b> 0.3 sec               |
| <b>60 mph</b> 6.0 sec                      |
| <b>100 mph</b> 17.3 sec                    |
| <b>130 mph</b>                             |
| <b>Rolling Start, 5-60 mph</b> 6.5 sec     |
| <b>1/4-Mile</b> 14.8 sec @ 93 mph          |
| <b>Top Speed</b> 140 mph ( <i>C/D</i> est) |
| <b>Braking, 70-0 mph</b> 165 ft            |
| Roadholding, 300-ft Skidpad 0.83 g*        |
| Fuel Economy                               |
| • EPA Comb/City/Hwy 24/21/28 mpg           |
| • <i>C/D</i> <b>Observed</b> 19 mpg        |
| *stability control inhibited               |

Rear-seat room is more accommodating than you'd expect based on the Corsair's exterior appearance. Looking a lot like a scaled-down Navigator's interior, the cabin is a blend of Kennedyera Lincoln glitz and 21st-century displays. Unfortunately, the reproduction is a little too faithful to the Gator, which means the Corsair is stuck with a facsimile of its big brother's unconventional push-button PRNDL.

From the chrome grille to the Porsche Cayenne-like taillights, Lincoln's exterior designers threw all their best ideas at the Corsair. Pulling extensively from the family album was a good move and leaves the Corsair looking a lot like its larger kin, the attractive and refined Aviator.

Apart from the hood flutter, there's nothing overtly cheap about the Corsair, and the high level of isolation and refinement is in keeping with a once popular definition of American luxury. But while smallness doesn't preclude a genuine sense of luxury, size does figure into pricing. While a base, front-drive Corsair is a \$36,940 proposition, our all-wheel-drive Reserve with the 2.3liter carries a \$58,510 price tag. That's a lot of ducats for something this small. We recommend going easy on the extras because no matter what you add to the Corsair, the hood will still flutter. Were it 40 grand, we could maybe stomach this annoyance. For 60, no way.

A weird sort of identity crisis has been afflicting the big three German luxury manufacturers. Audi, BMW, and Mercedes have been busy blending elements of one another's identity into their own, and the latest example is BMW purloining "absurd horsepower" from Mercedes-AMG's personality profile. The M5 Competition makes 617 horsepower. You can get a 503-hp inline-six in the X3 M and X4 M, and even this not-quite-full-M-treatment 3.0-liter six makes 382 horsepower in the M340i tested here.

Soft words like "peppy" no longer accurately describe the six-cylinder 3-series. It's frenetic now, even brutal. The rear-drive version (all-wheel drive is optional) hits 60 mph from a standstill in 3.8 seconds and its 30-to-50-mph passing time of 2.4 seconds is in league with vastly more powerful cars. It feels like by the time you're fully in the passing lane, it's already time to pull back to the right. And yet the B58 straight-six remains the pinnacle of smoothness, almost electric in its vibration-free power delivery.

Despite the unexpected drag-strip bent, the 2020 M340i is still very much a 3-series, as the species is commonly known. Longer than the outgoing car both overall and between the axles, and with wider tracks front and rear, it adeptly blends rough-road comfort with composure at the limit. With optional Michelin Pilot Sport 4S tires measuring 225/40R-19 up front and 255/35R-19 in the rear, that lateral limit is 0.96 g.

Audi, Mercedes, and even Genesis are redefining interior quality in this class, and yet BMW is resolutely sticking to obviously synthetic and rubberized plastic on the dash and doors. It's a shame the company wouldn't fight for the manual the way it's apparently fighting to keep this stuff. No stick is available with any 3-series engine until the M3 arrives. But that rubbery material does make the car feel familiar, and when you pitch it down a winding road, you realize this is the opposite of an identity crisis. This is exactly what a 3-series should feel like—on fast forward.



### 

| • L/W/H             | 185.7/71.9/56.4 in |
|---------------------|--------------------|
| Curb Weight         | 3813 lb            |
| Fuel Economy        |                    |
| • EPA Comb/City/Hwy | 25/22/30 mpg       |
| • C/D Observed      |                    |

DimensionsWheelbase

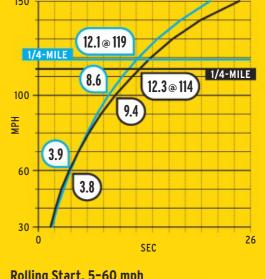
**As Tested** 

# TEST RESULTS COMPARED

Despite being down 62 horsepower, the M340i is neck and neck with the last-gen automatic-equipped M3 Competition. The M340i is also more than 20 grand less.

2020 BMW M340i2016 BMW M3 Competition Package









The new RS7 is a wonderfully well-rounded and highly desirable sports-luxury hatchback. We've long proclaimed that Audi's twin-turbo V-8, used in the previous \$7 and RS7, is one of the greatest engines out there, and it's even better in the new model. The RS7 has a hugely impressive amount of oomph, but it never feels bombastic, instead building speed in an effortless manner that makes it easy to drive smoothly and quickly. On less-than-pristine sections of asphalt, we were impressed by the Audi's wheel control. You'd think the optional 22-inch wheels that look so amazing would lead to a significant degradation in ride quality, but there was a surprising lack of harsh impacts. Rather than obscene power and aggressive visual add-ons. the RS7 relies on grace and elegance-and, granted, a lot of power-to distinguish itself from the A7 and middle-child S7.

### THE NUMBERS

Vehicle Type: front-engine, all-wheel-drive, 5-passenger, 4-door hatchback

Base ...... \$122,000 (est) **Engine:** twin-turbocharged and intercooled DOHC 32-valve V-8, aluminum block and heads, direct fuel injection

Displacement ..... .. 244 cu in, 3996 cc **Power** ...... 591 hp @ 6250 rpm 590 lb-ft @ 2050 rpm Torque

**Transmission:** 8-speed automatic

| Dimensions            |                    |
|-----------------------|--------------------|
| Wheelbase             | 115.4 ir           |
| • L/W/H               | 197.2/76.8/56.0 ir |
| Curb Weight           | 4550 lb            |
| Performance (C/D est) |                    |
| • 60 mph              | 3.4 sec            |

| Performance (C/D est) |          |
|-----------------------|----------|
| • 60 mph              | 3.4 sec  |
| • 100 mph             |          |
| • 1/4-Mile            | 11.4 sec |
| Top Speed             |          |

**EPA Comb/City/Hwy** ...... 18/15/25 mpg

### THE UPGRADES



BRAKES Brake Rotors, F/R: RS7: 16.5-17.3/14.6 in A7: 13.3/13.0 in

### STANCE

The RS7's stance is striking in person, and the extra width compared with the A7 doesn't come from tacky addenda. Some major body panels are unique to the RS model.

Width: 76.8 in (+1.7 in)



Front Track: 65.7 in (+0.7 in)



Rear Track: 65.0 in (+0.6 in)



### **CLEARANCE**

The RS7 is 0.4 inch lower than the A7 and drops an additional 0.4 inch at 75 mph.

"Hammelle



is used throughout the different strengths. Porsche Panamera GTS

453 hp 

Porsche Cayenne Turbo **541** hp 

Bentley Bentayga V8 and Continental GT V8

■ 542 hp 

Porsche Panamera Turbo

550 hp 

Audi RS6 Avant and RS7

munumumumumumumumum 590 lb-ft

Lamborghini Urus

■ 641 hp 



### TIRES

**Widest Available Tires** RS7: 285/30R-22 A7: 255/35R-21



### **TRANSMISSION** The RS7 has an eight-

speed automatic with

a robust gear-type center differential. The A7 has a sevenspeed dual-clutch automatic with a clutch pack limited to 369 pound-feet of torque that couples the front









# **Manual Shutdown**

Okay, maybe we don't want to save all the manuals.

Aston Martin is charging into the future. The Vantage and the DB were redesigned in just the last few years, and the DBX SUV's unveiling is imminent. But the 106-year-old company is also glancing back at the past with the Vantage AMR, the central feature of which is a manual transmission.

The Graziano seven-speed is the same unit that Aston fitted to the V12 Vantage S in 2017, even packing the same ratios and the dogleg first gear in the lower-left corner of the shift pattern. It's significantly lighter than the ZF eight-speed automatic that usually sits aft of the Vantage's 4.0-liter V-8. The manual and a limited-slip differential (no electronically controlled diff like the one paired with the automatic) account for a claimed 154-pound weight savings. Forged wheels, carbon-ceramic brake rotors, and various interior and trim pieces included with the AMR package cut another 66 pounds. In the interest of the Graziano's longevity, Aston restricts the torque output of its AMG-supplied 4.0-liter V-8, reducing it from 505 poundfeet in the automatic car to 461 here.

The seven-speed shifter is topped by a big, blocky knob that looks like a cheap aftermarket part, and the throws are clunky. With reverse placed above first, Aston wisely fitted a lockout to prevent catastrophic mis-shifts, but the gates are so tightly spaced that a one-two shift takes focus, lest it become a one-four. There's little clutch feel to speak of, but decent weight and progressive takeup make for easy, smooth shifts anyway.

Next year, the manual will make the leap from special-edition showpiece to regular option on the Vantage. It pains us to say this, but the manual conversion doesn't feel as fully realized as the rest of the car. This is an exceptionally engaging and fun vehicle, and in its mediocrity, the transmission calls negative attention to itself. It's a distraction in an otherwise positive experience.

503-hp twin-turbo 4.0-liter V-8, 7-speed manual **Base:** \$183,081

Performance (C/D est) · 60 mph: 3.8 sec 1/4-Mile: 11.9 sec · Top Speed: 200 mph EPA Comb/City/Hwy: 19/17/23 mpg (C/D est)

### **SHIFT WORK**

The Vantage AMR isn't the only car that Aston is offering with a manual. The company will build you another model with a clutch pedal. Aston Martin Works does a steady business putting manual gearboxes into the original Vanguish. Launched in 2001, the Vanquish came with a slow-shifting and clunky automated manual transmission. Fortunately, it's based on a Tremec manual gearbox, so converting it is straightforward. The electromechanical actuators are replaced with shift linkage. The automated clutch is swapped for a conventional setup, and a third pedal goes in. Works has now done around 70 cars. including 20 for owners in the U.S. The conversion cost is about \$31,500 (plus shipping), and considering a nice Vanquish trades for around \$60,000, you could make a strong case for going the conversion route instead of buying a new Vantage AMR. -Mike Duff

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# **VENUE, VIDI, VICI**

The Hyundai Venue isn't sporty or much fun to drive, but it's straightforward, charming, utilitarian, and exactly what the market wants right now. And starting at about \$18,500, it's a high-value proposition. It immediately makes sense at first sight.

In Hyundai's 2020 lineup, the Venue slides in beneath the Kona as the smallest and least expensive of five SUVs. It's got a handsome boxy design, an available contrasting-color roof, and a grille big enough to barbecue a side of beef. There's some Nissan Kicks in it, some Toyota Land Cruiser, and some of Hyundai's own Palisade, too.

The one we drove had the steering wheel on the right (meaning wrong) side. That's because we were in Australia, and the Venues to be sold there are slightly different from the ones that will come to the U.S. The 121-hp 1.6-liter inline-four will be the same, but where the Oz-spec automatic is a conventional six-speed, we'll be getting a continuously variable transmission for the upper trim. A six-speed manual will be offered on base models in both markets, and neither is getting all-wheel drive. The Venues we drove Down Under were all Elite models on 17s. That's likely close to the SEL trim that will be sold here.

However and wherever, the Venue is built to mosey. Maybe it will run to 60 mph in under 10 seconds. Or maybe it will take longer. The six-speed automatic is nice, but maybe the ute will be quicker with the CVT.

Or maybe not. Don't worry about this. The Venue's powertrain runs like the small, proven economy-car system it is. The chassis rides well and the brakes can be described as functional. What's going to sell it are the attractive interior and electronic gadgets. That includes navigation, forward-collision warning, lane-keeping minders, and rear parking sensors to go with the rearview camera. An 8.0-inch touchscreen atop the dash works well with both Android Auto and Apple CarPlay. It's kind of like another Korean icon, the Samsung Galaxy Note10. It's functional and intuitive, and Hyundai should easily sell a bazillion of them.

### THE NUMBERS

**Vehicle Type:** front-engine, front-wheel-drive, 5-passenger, 4-door hatchback

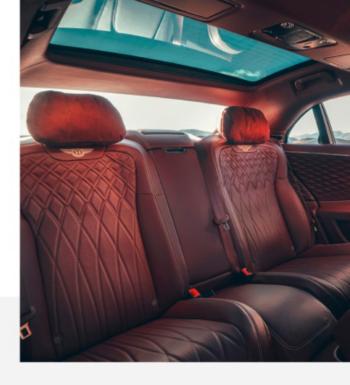
Engine: DOHC 16-valve 1.6-liter inline-4, 121 hp (est), 113 lb-ft (est)
Transmissions: 6-speed manual, continuously variable automatic

| סווטופווסוטוס    |                    |
|------------------|--------------------|
| • Wheelbase      | 99.2 in            |
| • L/W/H          | 159.0/69.7/61.6 in |
| • Curb Weight    | 2750 lb            |
| Performance (C/L | ) est)             |
| • 60 mph         | 9.9 sec            |
| • 1/4-Mile       | 17.8 sec           |
| • Top Speed      |                    |
|                  |                    |

27-30/34-35 mpg

EPA Comb/City/Hwy ..





2020 BENTLEY FLYING SPUR ~ BY DANIEL PUND

# The Idol Rich

With a new grille of exceptional splendor, the lesser Bentley sedan finally gets its moment of veneration.

Even in the inner sanctum of the Church of Wealth and Privilege that is Casino Square in Monte Carlo, the 2020 Bentley Flying Spur gets its due adoration. That's no small feat considering the nonstop procession of idols from Ferrari, Lamborghini, and Rolls-Royce also vying for worship in the Square.

So it's clear that the Flying Spur has passed its first trial on the trail to deification: It looks like money. Its massive grille telegraphs grand English luxury in a way the earlier versions did not. The nose now gets that other archaic signifier of class, the gleaming hood ornament.

You'd be hard-pressed to tell that the upright and blockish Spur is based on the same basic platform as the sleek and curvy Porsche Panamera. The new version has a 125.7-inch wheelbase, 5.0 inches longer than the outgoing model's. Most of that extra length goes toward adding some space between the leading edge of the front doors and the front wheel wells. The Spur now has a generous dash-to-axle ratio.

The interior is predictably roomy for front and rear occupants. The



Spur's infotainment system is fully up to date, but Bentley prefers you pay more attention to the car's yards of leather and wood veneer. The infotainment screen can be mounted to a rotating chunk of dash that will, at the push of a button, conceal itself in favor of three analog (and superfluous) gauges. Recall an old episode of Wheel of Fortune where Vanna White turned the letters on the big board and you'll have an idea of how this \$6365 rotating display works.

Thanks to rear-wheel steering, active anti-roll bars, and a new all-wheel-drive system programmed to remain in rear-drive in most conditions, the Spur feels surprisingly willing to pivot and play. Paired with an eight-speed dualclutch automatic borrowed from Porsche, Bentley's signature twin-turbo W-12 is the only engine at launch, although a twin-turbo V-8 will be offered eventually. Air springs and adaptive dampers deliver the hushed, unperturbed ride you would expect of a Bentley sedan.

We should talk about price, just in case you're trying to figure out if you can swing the monthly payments. We don't have a final number for the vehicle since Bentley doesn't yet know if the car will be subject to a gas-guzzler tax, but expect to pay at least \$220,000. Over five years, you're looking at about \$3700 a month.

### **CONTINENTAL SHIFT**

Bentley didn't sell any new Continental GTs in the U.S. market for the 2019 model year. That's a bit of a problem considering the big coupe is the brand's big seller (by Bentley standards, anyway). The redesigned GT was supposed to go on sale last year as a 2019 model. But in late 2017, Bentley's then newly appointed chairman and CEO, Adrian Hallmark, decided the model's dual-clutch transmission was not up to snuff. The resulting changes effectively restarted the clock on U.S. certification. Currently, only V-8 GTs are available in the U.S., but the W-12 cars should make it to market in early 2020. The delays do not impact the Flying Spur, which should go on sale in the first quarter of 2020, as planned. And perhaps we have Hallmark to thank for the dual-clutch transmission's unusually smooth behavior. –DP

### THE NUMBERS

Vehicle Type: front-engine, all-wheeldrive, 4- or 5-passenger, 4-door sedan

Engine: twin-turbocharged and intercooled DOHC 48-valve W-12, aluminum block and heads, port and direct fuel injection

Displacement .... 363 cu in, 5952 cc Power 626 hp @ 6000 rpm 664 lb-ft @ 1350 rpm **Torque** Transmission: 8-speed dual-clutch

automatic **Dimensions** 

• Wheelbase 125.7 in .... 209.3/77.9/58.4 in • L/W/H • Curb Weight 5500 lb Performance (C/D est) • 60 mph. • 100 mph . .. 7.9 sec • 1/4-Mile 11.8 sec Top Speed 207 mph

(C/D est)

EPA Comb/City/Hwy .....



THE RUNDOWN 89 CAR AND DRIVER ~ DECEMBER 2019



2019 FORD FOCUS ST ~ BY MIKE DUFF

# ReFocused

Ford's Focus ST is a brawny front-driver. Bring a passport.

The Focus has left the U.S. as part of Ford's general retreat from the unfashionable part of the market that some of us still refer to as "cars." But in Europe, the Focus is thriving, with both a new generation and now the sport-oriented ST model to make us properly jealous.

The old ST's turbo 2.0-liter four is replaced by the brawnier, but detuned, 2.3-liter from the Focus RS. It makes 276 horsepower and drives the front axle through a torque-vectoring differential. A six-speed manual is standard, but there will also be a seven-speed automatic.

Although it's more muscular, this ST is less aggressive than the last one. The engine delivers strong torque low in the rev range with little lag. Despite having a quick rack, the steering feels slower than before and lacks the alarmingly abrupt turn-in of the old car. Adaptive dampers are standard on the gasoline-powered model, and its low-speed ride is markedly better in Normal mode. Driven gently, this ST feels more grown-up than its predecessor, but also a little less exciting.

We drove the car on the Route Napoléon in the South of France, an asphalt encyclopedia of interesting corners. In Sport mode, the car's character is transformed, with sharper throttle response, heavier steering, and molasses for dampers. Grip level from the Michelin Pilot Sport 4S tires is huge, but it is the poise of the ST's chassis that really impresses. Adhesion between the front and rear axles is almost perfectly balanced, and the Focus is about as throttle steerable as a street-legal front-drive car can be. The clever differential helps in slow turns, transferring torque to make the best use of available grip and reacting quickly enough to counteract torque steer over rough surfaces.

The new engine has more torque than the 2.0-liter diesel that Europeans can also buy in the ST. It's a revver, too; peak power comes at 5500 rpm, and the 2.3 spins freely until a 6750-rpm redline calls time. Ford's claim that the ST is quicker around most circuits than the Focus RS sounds plausible.

It's not perfect. An electrohydraulic brake booster leaves the
pedal feeling slightly artificial when
pushed. The accelerator pedal is also
poorly placed for heel-and-toe rev
matching; although, on Performance-pack-equipped cars, there is an
auto-blip feature in Sport and
Track modes. But the Focus
ST's greatest sin is one of
omission: failing to come here.

### THE NUMBERS

**Vehicle Type:** front-engine, front-wheel-drive, 5-passenger, 4-door hatchback

### Base ...... \$31,425 (U.K.)

Engines: turbocharged and intercooled DOHC 16-valve 2.0-liter diesel inline-4, 188 hp, 295 lb-ft; turbocharged and intercooled DOHC 16-valve 2.3-liter inline-4, 276 hp, 310 lb-ft

**Transmissions:** 6-speed manual, 7-speed automatic

### **Dimensions**

| Wheelbase              | 106.3 in                   |
|------------------------|----------------------------|
| • L/W/H                | . 172.8/71.9/57.4 in       |
| • Curb Weight          | 3350-3450 lb               |
| Performance (C/        | D est)                     |
| • 60 mph               | 5.5-5.7 sec                |
| • 1/4-Mile             | 14.2-14.4 sec              |
| • Top Speed            | 155 mph                    |
| <b>EPA Comb/City/H</b> | lwy 23-24/                 |
| 20-21/27               | 7-29 mpg ( <i>C/D</i> est) |

### MORE WANT

In addition to this hatch, Ford of Europe also sells the ST as a wagon, which is both better-looking and more fun than the Escape we get here [see page 54]. Focus ST wagons get revised rear suspension geometry with repositioned dampers to accommodate higher loads.

ACTION

# THE SILENCE OF THE AMPS

Pin the Zero SR/F's accelerator or jump out of an airplane; either way, you'll hit 60 mph in roughly three seconds with wind thundering in your ears and adrenaline coursing through your veins. Motorcycles aren't supposed to be this quiet, and a \$19,990 starting point is a big ask for only two wheels, but the Zero's appeal is as simple as the very idea of an electric bike. The SR/F's motor pulls toward its 110-hp peak as relentlessly as gravity.



110-hp AC motor, single-speed direct-drive • Base: \$19,990 Performance (C/D est) **60 mph:** 3.0 sec 1/4-Mile: 11.8 sec Top Speed: 124 mph

### YOU'RE MOTORING

The Zero's 110-hp permanent-magnet motor has all 140 pound-feet of torque at the ready from a stop, but aside from the subdued whir it makes, the most unnatural part of accelerating is the lack of shifting. A finned housing surrounds the motor to help with air cooling. A belt transfers torque to the rear wheel.



### CHARGING FOUL

You would need the resolve of a glacier to attempt a longdistance trek on an SR/F. A full recharge on a 240-volt Level 2 connection takes between 1.5 hours and 4.5 hours, depending on how the motorcycle is equipped.



### LIFELINE

This shoebox-sized storage bin fits a 120-volt charging cord with room to spare for a wallet, phone, and sunglasses. Or leave all that at home and squish up to 53 packs of Life Savers Gummies in there.



# WHAT'S LEFT WHEN YOU'RE RIGHT

With no clutch or shifter to occupy the rider's left hand and foot, this 500-pound street fighter is almost scooter-like in its simplicity and ease of operation. That's a boon for urban commuters, but it also frees your mind to wander. On the SR/F, it can be hard to capture the all-consuming, almost meditative focus that comes with riding a motorcycle well.



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The classic Saab 900 wasn't everything, but it certainly was a lot. Sports car, sports sedan, convertible, hatchback, rally machine, family wagon, and the non-Volvo choice of college professors. What if Saab hadn't fallen into a convoluted GM and Spyker bankruptcy rathole back in 2011? What if the brand were as strong today as it was in the '80s? Designers from FCA, Ford, and Nissan sketched their visions of what a Saab 900 might look like today. —*John Pearley Huffman* 

### 1. Brian Nielander

Chief Designer, Performance, Passenger Cars and Utility Vehicles; FCA North America

"Drawing inspiration from the clean lines and forms of the Aero X and 9-X concepts, I imagined a halo car for Saab in the form of an electric 2+2 coupe. The overall theme incorporates signature Saab design cues, such as a unique roof and glass treatment as well as clean and subtly sculpted body sides. The detailing is understated and refined, and it of course wouldn't be a Saab without a turbine-inspired wheel design."

### 2. Anthony Colard

Exterior Designer, Ford Motor Company

"I tried to capture the recent design language from Saab and progress it, keep the design clean in contrast with the very busy and overcomplicated automotive landscape of today. I think that a coupe-wagon vision would have been a great high-level entry for Saab to differentiate itself from competitors, such as the new Panamera GTS, for example."

### 3. Alfonso Albaisa

Senior Vice President, Global Design, Nissan Motor Company

"In the mid-to-late '80s, I went home to visit my folks and sister in Miami and saw my sister pull up in her new 900. In a bay of sameness, her silver-blue hatchback had an undeniably memorable silhouette. Three months later, I came back after winter semester, and as I arrived at the house, my dad gently pulled up in his Saab 900 convertible.

"As electrification brings more freedoms, I believe even an all-polycarbonate Saab e900 would strike a memorable gesture."

### What owners say about V1...



\*\*\*\*\* Bill P., Phoenix, AZ

Where's the radar? An arrow lights up, pointing either Ahead, to the side, or Behind. And, amazingly, it's never wrong.



\*\*\*\*\* Arnie R., Atlanta, GA

**So easy to operate**, a box with one knob. No need to poke around at full-arm's reach for little buttons the size of rice grains.



★★★★★ Glenna R., Dallas, TX

Love the arrows! Where's the

radar? They tell me every time.
A detector without the arrows is like a car without headlights.



★★★★★ Chas S., Charlotte, NC

Situation Awareness you can trust. With the Radar Locator arrowing toward threats, and the Bogey Counter telling how many threats you face, V1 makes defense easy.



\*\*\*\*\* Cal L., Trenton, NJ

I've owned my V1 since 2001, and I've had it upgraded twice. I trust the arrows to point out every radar trap. When I know where, I know how to defend.



★★★★★ Ed H., Las Vegas, NV

How can anyone not be smitten by the Arrows? Radar ahead needs a different defense than radar behind. When I know where, I know what to do. When I put the threat behind me, the arrows confirm it. Without the arrows, you're guessing.



\*\*\* \*\* \* Rob R., Sacramento, CA

This is the slam dunk best radar detector. No databases to keep updating, or other "features" I'll never use. Instead V1 tells me the important stuff—the Bogey Counter tells you how many threats within range and the red arrows tell where they are.

# Trust...V1 earns it one ambush at a time.



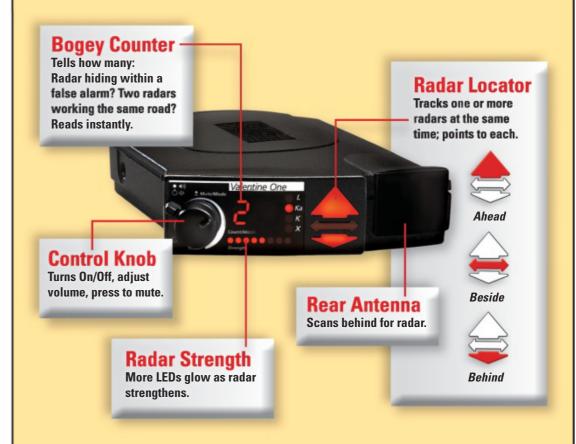
Harold B., Houston, TX

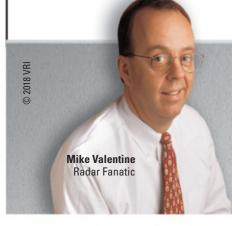
On my way home this afternoon I was following another detector user. I could see red blinking in his windshield as we went past the first radar. Thinking the danger was behind, Mr. Ordinary Detector User hit the gas.

Uh-Oh. V1's Radar Locator was showing two arrows, one pointing toward the trap now behind, and a second arrow ahead. The "2" on the Bogey Counter confirmed we were being double teamed.

Sure enough, Mr. O. D. User cruised into the second trap up the hill at 15 over and got himself a blue-light special.

V1 points to *every* trap. I trust it completely.





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